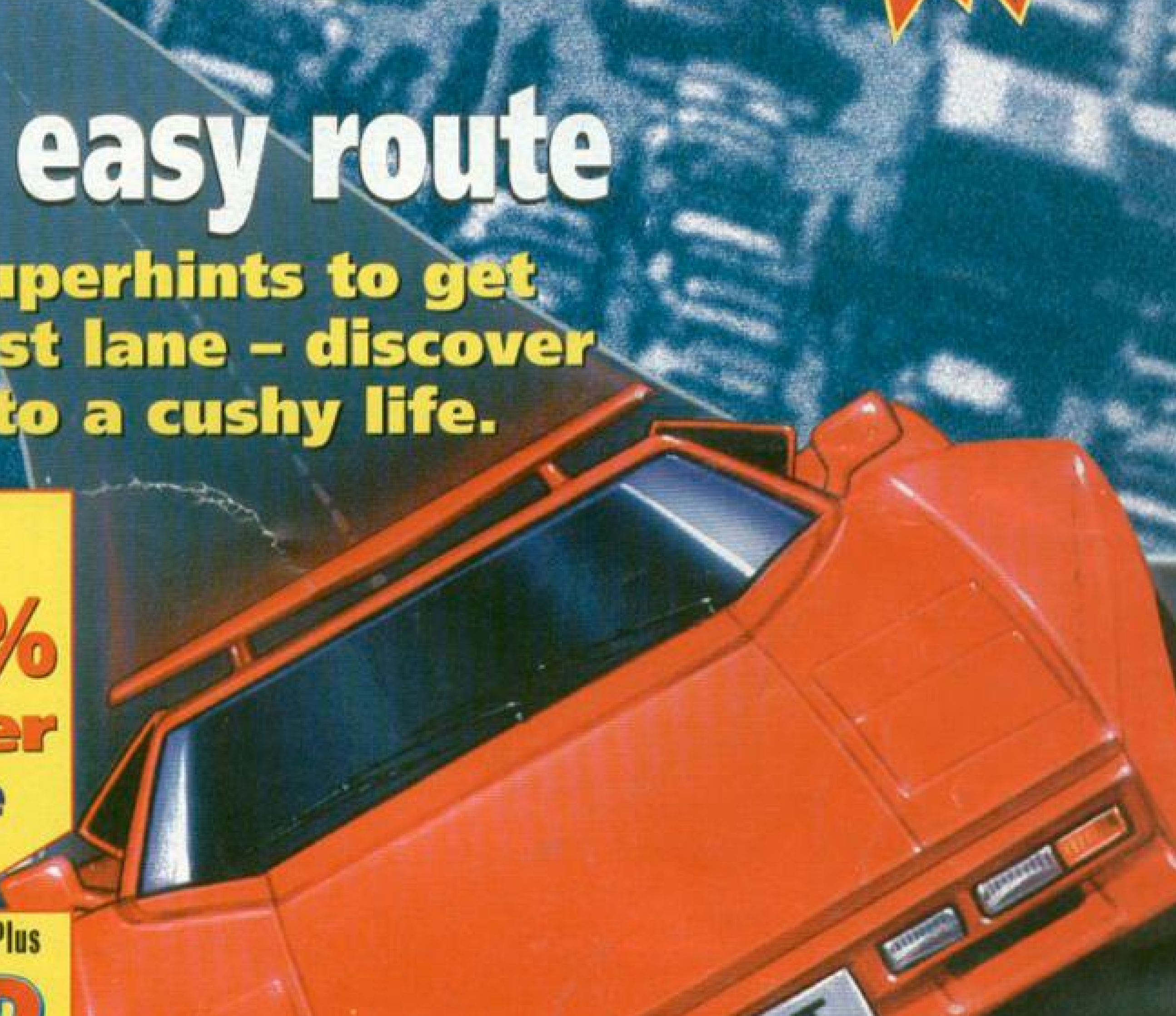
The most successful CPC mag in world history

AMSTRAD ACTION

ISSUE No.98
November 1993
£2.95

Take the easy route

Over 50 CPC Superhints to get you into the fast lane – discover the short cuts to a cushy life.



95%
rating winner
The complete 5-level game

Amstrad CPC 464, CPC 6128, CPC 464 Plus

AMSTRAD ACTION SPECIAL



THE BLUES BROTHERS

COMPLETE GAME!

NOVEMBER 1993

Plus
Encyclopaedia Amstradica Volume One – the definitive A-Z of the CPC

• TOP TIPS • FIRST REVIEWS •
• BEST ADVICE •



CPC

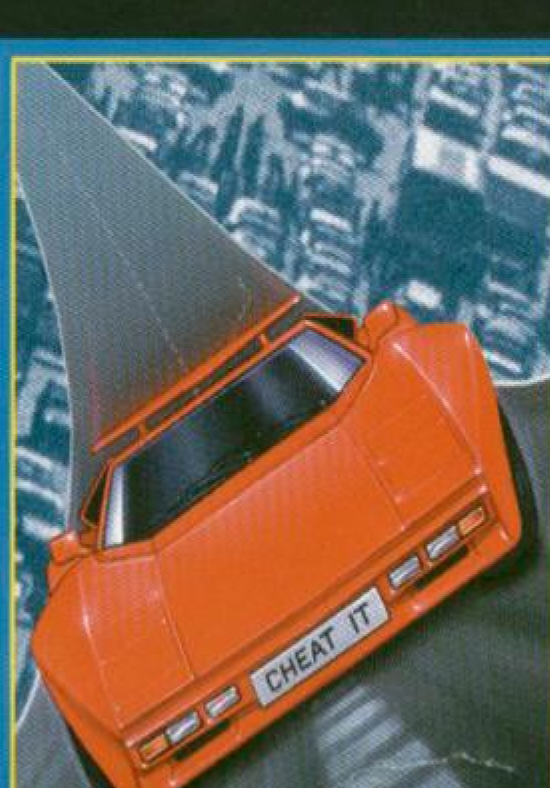


PLUS

Future PUBLISHING
Your guarantee of value
NOT an official Amstrad publication

Line

Serious stuff



Cover feature



Ever wanted to write a game but have been put off by the fact that, well, it just seems so darned difficult? Then Zack Construction Kit (page 20) might be the short cut you need.



Leisure zone



Some of the best games coming out at the minute are PD. The Smiley Affair (reviewed on page 41) is a great little puzzler.

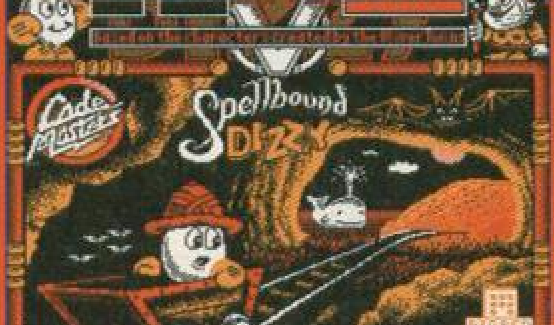


-up

Regulars



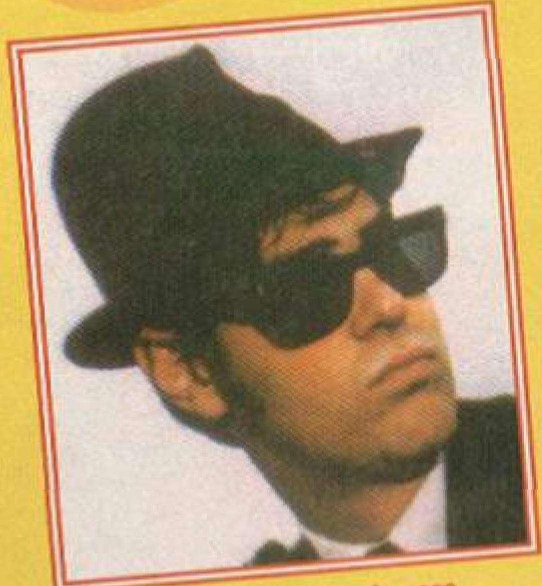
Us? Jumping on the Jurassic Park bandwagon? No. It's just a coincidence that one of our listings in Type-ins (page 32) this month just happens to be about dinosaurs.



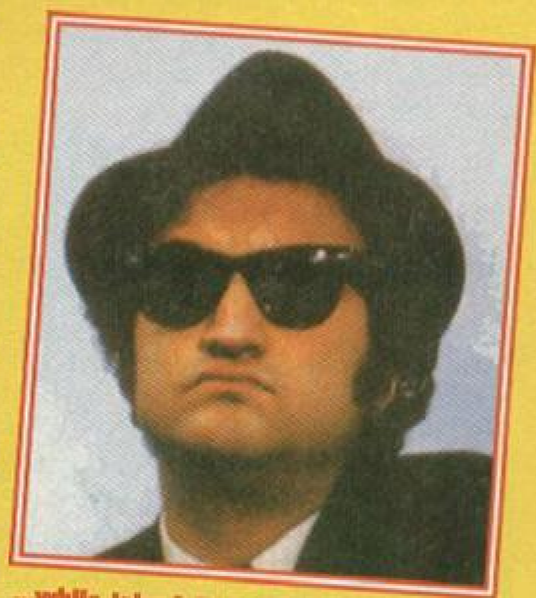
If you turn to page 51 you'll find a caption to this picture. Frankly, I can't be bothered thinking up another one right now.

THE BLUES BROTHERS

Jake and Elwood are here and they're on a mission from Amstrad Action to provide you with five stonking levels of top-notch platform action.



Elwood goes for the moody pose...



...while Jake fails to disguise the fact that he's actually fallen asleep.

Wanna know something that'll blow your socks off, taking your Doc Martins with them? When we originally reviewed The Blues Brothers in AA79 we gave it a massive...

95%

Just turn the page for all the details.

AMSTRAD ACTION SPECIAL

The Blues Brothers

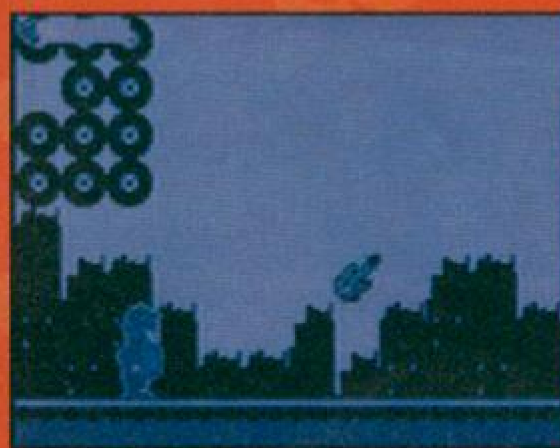




"Ooooh, I woke up this morning, my babe had run away, my dog had died, my eggs weren't fried, it's gonna be a blue, blue day." Er, Sarah, we said your first job as our new writer was to play the Blues Brothers, not the blues...

You've seen the film, bought the soundtrack, seen the tributes, bought the T shirt, used the loo roll, now you can be *The Blues Brothers*... well, sort of. This month, not only do you get a fabulous magazine for the moth-defying price of five pence (less than three pounds) but you're also getting all five-levels-worth of the brilliant *Blues Brothers*.

But you're in for a tough time. Y'see it's a hard life being a successful blues partnership. So many people are consumed with jealousy that they'd do anything to bring you down. Even the local sheriff Josh McKenzie doesn't like you. The last time you ventured into these parts you left so much mess behind that he's stolen all your essentials and wants you to 'get outta town' in his best western accent. Don't let him speak to you like that (*you'd prefer him to speak in a Welsh accent? – Dave*). You've got a gig to play tonight. Find your instruments and have a ball. *The Blues Brothers* are back in town, ready or not.



This is what you're looking for. It's the end of the first level, but before you pick up the guitar collect some of those records.



Lots of lovely vinyl records to boost your energy. You don't get that with CDs.

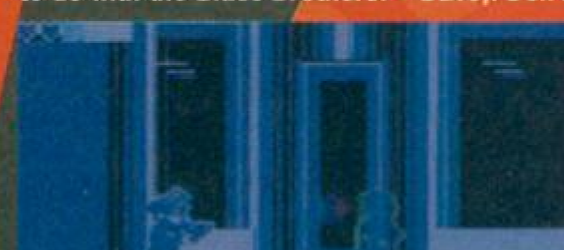
When you start the game you have to make a decision. I'm sorry, but it has to be done, so face up to your responsibilities; which Blues Brother do you want to be, Elwood (the thin one) or Jake (the fat one)? Don't worry if you change your mind later on in the game, because you can swap when you reach a new level. A change is as good as a rest I always say. There isn't much difference between the two, but Jake is animated a bit better; Elwood seems to be from the Penelope Pitstop School of Animation.

And so it's on with the game. It wouldn't be a platformer if there weren't things to collect. But there are. Loads of them. And, strangely, platforms too. So, what we have here is, indeed, a platformer and a fine example of the genre it is too. Among the collectables there are hearts to boost your energy level along with hats and sunglasses that give you extra lives.

The aim in each level is to find a missing object that'll get you one step closer to being prepared for the gig. In level 1 it's a guitar you're after, in level 2 it's a set of headphones, but after that, you're on your own – I'm not giving you any more clues.

Also littering the landscape are records (good old vinyl) which you can scoop up by the truck-load. When you've got 100 you're awarded another energy heart. Watch out for broken records, though; each one of those you pick up will lose you 50 record tokens.

Imagine it's your birthday (*what's this got to do with the* Blues Brothers*? – Dave*). Don't



That nasty Nazi is after your blues. You'll need to chuck a crate at him soon if you ask me. Oh, and I should duck or you'll be shot.

Nobody likes a bad blueser



Isosocles hides on rooftops and fires his big gun at you without mercy. He may look like a Nazi but I'm sure his mum likes him.

The Mad Doctor lurks under the stairs and stabs you with a needle.

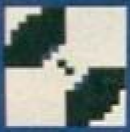
This Sergeant Major patrols the alleys and shouts at you.

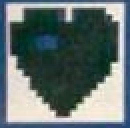
Yo ho ho and a bottle of rum, if you're not blue you must be dumb.

This one's a happy soul by the name of Steel O'Bill. He'll fire rivets as soon as look at you. He used to work in the shipyards.

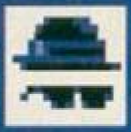
Collectables


Every 100 records collected wins an extra energy heart.

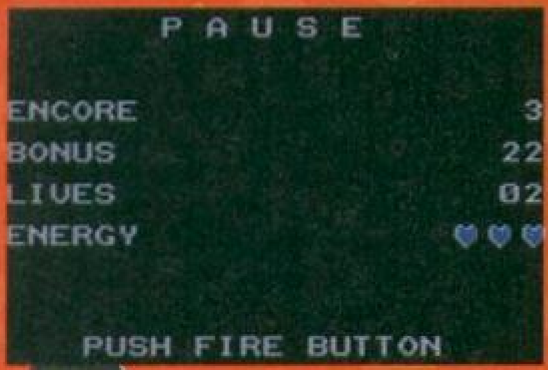

Pick up these broken records at your peril. Deduct 50 records from your total for each one.


Collect these hearts to increase your energy level.


Some pressies are nice, and some are nasty. Find out which is which the hard way.


Extra life. Why a hat and glasses signifies an extra life is a bit weird, though.


Use these balloons to float through hundreds of records and find new lands.



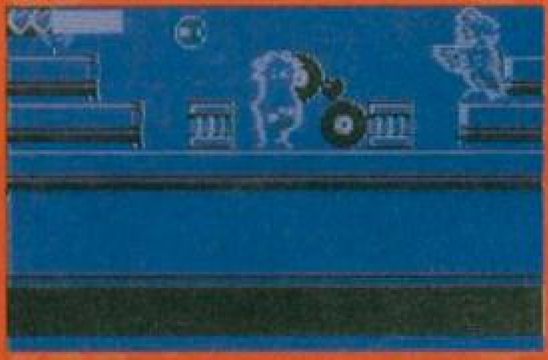
To find out how many lives you've got left, and to pause the game, press P. Simple eh?

worry, we'll get back to them in a minute. Anyway, remember the way your parents give you nearly what you want, your mates give you something you didn't know you wanted and your gran gives you something you'd rather do without completely, thank you very much? The pressies in *Blues Brothers* are the same – some give you more points, some take away points while others immobilise you for a few second (*but at least you don't end up with a naff jumper that'd fit comfortably on a pregnant hippo – Dave*).

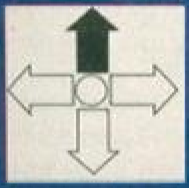
There are loads of nasty nasties and 'orrible 'orribles to avoid. So what powerful weapons do you think you've against these foes? A big gun? Hand grenades? A violin case containing a machine gun? No such luck. Crates. Yep, I said crates. You have to pick up crates and chuck them at the baddies. Make sure your chosen victim is on the same screen as you before you throw a crate because it'll disappear if you miss, which is a bit of a waste of ammunition.

The crates are like policemen; there's never one around when you want one. If you see a crate, pick it up so you've got it ready to lob. But if you need to make a mighty leap you'll need to drop the crate first as it'll weigh you down, so that you can't jump as high or as far as normal.

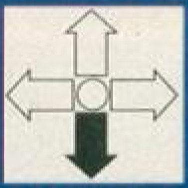
Each level is on a scale so vast, you can expect to see *The Blues Brothers* listed as a synonym for vast in the next edition of *Roget's Thesaurus*. There's a superb soundtrack, with different music for each level, and on top of that there's loads to laugh at. From the animation of the lead characters to the collision detection, this game fulfills all the requirements of a classic game. It's even got multi-directional scrolling! And it's on your covertape. And we recommend you get it up and running on your CPC as soon as possible.


Now look what you've gone and done. That dodgy pressie has immobolised you.

Controls

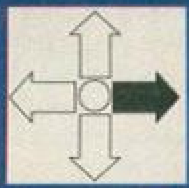

Jump

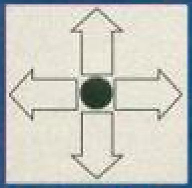
P (on keyboard) – Pause



Crouch down

Joystick down & left/right – crawl along the ground.


Move left (Joystick right – move to the right)



Pick up crates Press fire again to throw.

Loading instructions

Just pop the tape into your machine, making sure it's rewound to the start of side one, press CTRL and ENTER (or type RUN""), then press any key and the tape will start loading.

After pressing Fire to get past the earlier loading screens, a tiny little 'REWIND' will appear on the screen. When this happens, turn the tape over (yes, that's right, turn the tape over), rewind it to the start of side B and press PLAY again.

The tape won't work? Surely not?

We go to great lengths to make sure that our covertapes work properly. However, if you still have difficulty, try these solutions:

- Loading at several different volume levels (if you're using an external tape recorder).
- Cleaning the tape heads. This can be done with any commercially available cleaning kit.
- Adjusting the cassette recorder's head alignment. The alignment screw is located just to the left of the tape head, and is usually accessible through a small hole. Turn it a fraction at a time with a jeweller's screwdriver. When the crispest sound is heard, the alignment is spot on.
- Tapping the cassette GENTLY against a table edge – the spools may be sticking or jammed.

If you still can't get the tape to load then send the tape, along with a brief description of the problem and a stamped SAE to:

AA98 Covertape Returns, Ablex Audio Video Ltd, Harcourt, Halesford 14, Telford, Shropshire TF7 4QD

But I want a disk version!

If you've got a disk drive, though, and you want a disk version of *The Blues Brothers*, you can order just such a wondrous artefact from our duplicators, Ablex. All you have to do is snip off the coupon on the bottom corner of this page and send it with a cheque/PO for £2 to:

AA98 Disk Offer, Ablex Audio Video, Harcourt, Halesford 14, Telford, Shropshire TF7 4QD

Please don't return tapes to the AA office. Ever! If you do, we'll just feed them to Simon, and when you ring up to see where it's got to, we'll just make you feel stupid for not reading this bit in the first place. You have been warned!

Ah – there's a little bit of space left over. I (it's Hairy here, by the way) think I'll tell you about the absolutely fab stuff you've got coming your way in the future on the tape – games like *Stormlord*, *Cybernoid*, *Exolon*, *Zynaps*, *Uridium*, *Nebulus* – can it get any better? Frankly, there's only one game to beat those lot – you'll find it on *AA100*...

Disk 98 Token

Amscene

What's hot and not what's not on the CPC news front.

Our stance



Oi, Andy, I thought I asked you to change this photo.

Recently, *AA* has been accused of having 'vendettas' against various people in the CPC scene, mainly, it seems, because we don't give glowing reviews to everything produced by the indie CPC software developers. This, frankly, is ridiculous.

Our reviews are fair and frank remarks based on the quality of the software alone. If we had 'vendettas', then that would be publishing suicide in a market like the CPC's. We support the work of everyone who continues to develop for the CPC, but the harsh truth is that if a company releases a program that really is not up to scratch, it is more likely to put people off using their CPCs and buy another machine with software that suits their needs.

To keep the scene alive we need quality software, and kidding ourselves that something that's rubbish isn't is just burying our heads in the sand. **Dave**

No joke – SF2 is coming

Miracle of miracles! It looks like *Street Fighter 2* is actually going to appear! Trust us – it's coming. Don't run out and buy it just yet, though – US Gold still haven't confirmed a date, but it looks like it could be before the end of the year, and it'll be on budget straight away.

It's for this reason, then, that we're going to have a few minutes silence in memory of an absolutely wonderful running gag. We're sad it had to end this way, but life can be cruel like that.

On the upside, of course, the best beat-'em-up of all time ever, ever, ever is coming to the CPC soon! Keep an eye out – it's most definitely on it's way...

Get it on tape

We've just received word of a new PD library opening up called COLROB. What's so great about that, then? Well, it's a tape-only library! Wow, and indeed, wow. If you want a catalogue, send an SAE to: COLROB PD, 9 Aviemore Road, Hemlington, Middlesborough, Cleveland.

It's back

Demon PD Library has been completely re-structured and now contains 180 selections of quality software. For a catalogue, send an SSAE to: 47 Hilton Avenue, Hall Green, Birmingham B28 OPE.

Summer knights

Okay, naff headline, I admit, but the point is that there's a new PD library starting up called Knights PD. The librarian, Tommy MacDonald, is on the look out for any PD software, whether it's stocked in other libraries or not. This is where you come in – get coding! I know the PD scene will welcome another library – that is, after all, part of the spirit of PD (an active and friendly scene).

Oh yeah – you'll be wanting an address: 7 County Cottages, Piperhill, Nairn IV12 5SE.

New on the 'zine



News has also just reached us of a new fanzine on the scene, *CPC Undercover*. Each issue costs 80p, and is 16 A5 pages big. The first issue, which has been been edited, written, designed and just about everything elsed by David Crookes features a coverdisk... of a sort. If you want to be the proud owner of the PD programs *Zap't'Balls, Croco Magneto* and *Rambase Three* you need to send a disk along with your order. Write to: CPC Undercover, 37 Trimingham Drive, Brandlesholme, Bury, Greater Manchester BL8 1JW.

FEStival time

And the FES headlines this month (anyone would think *they paid our* wages) are – bong – Radio One will be broadcasting live from the show – bong – cheap rates for school parties – bong – there'll be a ride called the Typhoon that packs a punch in the G-force stakes and – bong – it'll feature a massive arcade hall bursting to the seams with all the latest games from all the major software companies.

Now the bit where we go into more detail. This year, the show is offering a Special Schools' Rate (that's not a rate for special schools, but a special rate for schools). It's easy – all you have to do is convince your teacher to get a group of 15 or more together and write to the FES care of Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW and they can get you all in for £6 per head! If you have any trouble persuading them, show them this next paragraph:

Hello there teacher. Listen, and listen good. If you don't take these poor technology-starved sprogs to the FES this year, I'll name you in this national newsstand magazine as naff teacher of the year. And yes – this is a threat. Yours, Hairy.

There – that should convince them. But what about you? Well, could we tempt you with Simon Mayo, who will be broadcasting directly from the show for Radio One? Plus there are going to be some pretty amazing fair-type rides, such as Dodgems and a thing called the Typhoon – and there's only of these in the country. Then there are all those games in the most massive arcade you'll have ever seen. Oh yeah, and we'll be there as well (on the Friday), but cheer up, it's not all bad...

The ticket hotline is 051 356 5085. Tickets are going fast.

War reparations

Galactic Warfare is gong through a bit a revamp. In response to our review of the SF strategy game last issue, the author, Peter Gardener, has decided to snazz up the graphics and rewrite the manual, so the final version should be miles better than the one we reviewed. It's that kind of thing that really reinforces your faith the CPC scene.

So the address you'll be needing to order the game is: PJ Gardener, 2 Crofton Road, North End, Portsmouth, PO2 ONT (sorry about missing that detail out last time).



More colour, more instructions coming for Galactic Warfare

Haddock – now there's a fish

Ultra Software have put together a new catalogue of loads and loads of computer supplies. Anyone asking for the new catalogue before the end of November will receive discount vouchers for huge amounts – up to £50.

If you like the sound of this offer contact: Ultra Software, Fulling Mill, Broughton, Banbury, Oxon OX15 6AP.

Prices crisis

Last ish in the Machine Code tutorial review things got a little confused. If you want to get hold of the tutorials, they'll cost £3 each from Sentinel (address opposite). The accompanying software costs £3 if you don't send a disk, £1 if you do.

The Amscene Directory



It's only been running for two months and we've already changed the format. Typical, eh? Just like the way they rearrange all the shelves in the food bit of Marks and Spencer every week. But there is a method to our madness. Y'see we reckon that the new lay-out makes the directory easier for you to use. And are we right or are we right?

Anyway, same rules apply as last month. If you think you offer a service that should be included in the directory write in to: Amscene Directory, *Amstrad Action*, 30 Monmouth Street, Bath, Avon, BA1 2BW. We reserve the right not to include anything that we feel is against the spirit of the section. Why? Because we can.

PD Libraries

Adventure PD
☎ 081 310 9877
Specialists in adventures.

Amsof
✉ Lissanly, Cloyne, Middleton, Ireland
Large range of European stuff.

Amstrad Fun
✉ 8 Springfield Drive, Templeogue, Dublin.
Large range of European stuff.

Colrob PD
✉ 9 Aviemore Road, Hemlington, Middlesborough
New tape-only PD library

Dartsma
☎ 081 317 1170
And they do loads of other CPC-related stuff as well.

Demon
✉ 47 Hilton Avenue, Hall Green, Birmingham B28 OPE
3.5-inch disk drive owners might like to investigate.

GD PD
✉ 49 Woodville, Barnstaple, Devon EX31 2HL
New library with a large selection.

PD Fun
✉ 41 Michaelgate, Kirkby Lonsdale, Via Carnforth, Lancs LA6 2BE
A policy of 'no serious software.'

Presto PD
✉ 119 Pwll Street, Landore, Swansea, West Glamorgan SA1 2PB.
The only library to offer stuff on 5.25-inch disks.

Signal Software
✉ 83 Longleat, Great Barr, Birmingham B43.

Sheepsoft
☎ 0446 736529
Based in Wales, of course. Baaaaa

Fanzines

CPC Now!
☎ 0353 663030

WACCI
☎ 0353 663030

CPC User
☎ 0329 234291
The UAUG's fanzine.

CPC Undercover
✉ 37 Trimingham Drive, Brandlesholme, Bury

User Groups

Amstrad Contact
☎ 0403 753348
Sussex-based group run by Dave Muggeridge with a technical helpline.

UAUG (United Amstrad User Group)
☎ 0329 234291
An *AA* recommended user group.

Independent Software Companies

Avatar
☎ 0442 251705
Suppliers of Phil Craven products, and a few of the Bonzo titles (and don't ask what Bonzo titles are – it'd take too long to explain).

BoxForm
☎ 051 336 2668
A software house specialising in, would you believe, betting software. It takes all sorts in this world.

Campursoft
☎ 041 554 4735
You name it, they do it, really – take a look at the interview in ish 96.

Gary & Scott Kennedy
☎ 061 736 1204
Authors of *Trakers*, a truly great CPC game (don't argue).

New Age Software
☎ 01049-711-4201920
Responsible for the dull *Zap'T'Balls*, the excellent *Soundtrakker*, and hopefully a few more titles.

Quantum Computing
☎ 0446 746920
The new breakaway sect of STS that looks set to pick up where the original good plans fell short.

SD Microsystems
☎ 0760 720381
Specialists in business software – take a look at the feature in *AA*93.

Sentinel Software
☎ 081 876 7032
Suppliers of selected STS titles (probably Quantum titles, now), and a few original products.

Siren Software
☎ 061 724 7572
It'd take a hell of a time to list everything they do – check out their ad (it's the yellow half-page one).

STS ☎ 0446 746920
This lot deal with S/DOS, *The Dizzy Utility, Disc Imager, Disc Archiver.*

The Big Softies

Alternative Software
☎ 0977 797777

CodeMasters
☎ 0926 814132

Gremlin/GBH
☎ 0742 753423

Ocean/Hit Squad
☎ 061 832 6633

Titus/Fox Hits
☎ 071 700 2119

Touchdown
☎ 0268 541126

Virgin
☎ 081 960 2255

US Gold/Kixx
☎ 021 356 3388

Zeppelin Software
☎ 091 385 7755

Hardware

Romantic Robot
☎ 081 200 8870
Creators of the Multiface – There's a complete list of cheats in *AA*90.

WAVE ☎ 0229 829109
Suppliers of loadsa good stuff – their ad is on the back cover.

Mail Order

Trading Post ☎ 0952 462135
Great for cart games (see page 42).

Trojan ☎ 0554 777993
The people to speak to for cartridge and lightgun stuff.

Spares and Repairs

STS ☎ 0446 746920
These guys'll do anything. Well, within reasons, of course.

Don't miss out on AA99

Because apart from all the usual reasons why you shouldn't miss AA, it's going to be a Desktop Publishing special with features, tips and even programs on the covertape all about CPC DTP. So hand in this form to your favourite newsagent, and he'll reserve you a copy.

MAG*SAVE

Amstrad Action 99 will be the major event of next month, and I don't want to miss out.

Dear Newsagent, could you please order me a copy of *Amstrad Action*, starting with the December issue, which'll hit the shelves on November 25th. *Amstrad Action* is published by Future Publishing (who also bring you the FES), and you can order it from your wholesaler. Thanks.

My name..

My address..

....

....

EASY STREET



Welcome to the essential AA guide to an easy life. No longer will you have to suffer a CPC that'll only do what it's supposed to. We're going to let you in on a few tricks of the trade and reveal a few short cuts for everything from programming to games; you want infinite lives cheats for your word processor? You got 'em (Simon, are you feeling okay? – Dave).

Machine Code

These, to be frank, are the technical bits. If you don't understand them, sorry, but maybe in time you will (oh, hark at the wizened seer of the mountains – Dave).

BASIC moves

Let's start with something no-one will understand – moving the start of BASIC (if you want to re-arrange memory). There are several locations that'll need to be POKEd. Where you see **hb**, it means high byte, and we think you can guess what **lb** stands for. Anyway, here it is for 464 users:

```
&ae81,lb
&ae82,hb
&ae83,lb+3
&ae84,hb
&ae85,lb+3
&ae86,hb
&ae87,lb+12
&ae88,hb
&ae89,lb+12
&ae8a,hb
```



But what about 664 and 6128 owners? Well...

```
&ae64,lb
&ae65,hb
&ae66,lb+3
&ae67,hb
&ae68,lb+3
&ae69,hb
&ae6a,lb+12
&ae6b,hb
&ae6c,lb+12
&ae6d,hb
```

Disk errors?

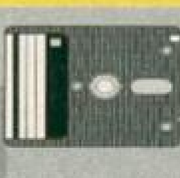
Sometimes, you'll be coding a program and you don't particularly want the CPC to throw a complete spazz every time there's a disk error. So, if you want to turn those pigging little messages off, you'll need to POKE **&be78** with **&ff**, and if you want to turn them back on, POKE the same address with **&00**.

By the same token, you can set the retry count quite easily – just POKE **&be66** with the number of retries you wish the machine to attempt.

String editing?

If you have ever tried to write a slightly more complex package in Machine Code, you will probably have come up against all the usual

BASIC tips



Anything that makes programming less of a hassle has got to be a good thing, right? In which case this section's got more good things than the toy department at Harrods.

Stripy text

Type the following in direct command mode – you could use this technique for better lettering on your games, or just for the novelty of it:

```
MODE 0:PEN 7:CALL &BBFF
```

Bye bye cursor

Many BASIC programmers get a little tired of their cursor. No worries, if you have a 464, that is – just turn it off:

```
POKE 45709,4
```

You might like to turn it back on, though:

```
POKE 45709,0
```

Speed demon

Tape owners will always be unhappy with their tape loading times, but you can speed them up:

```
a%=0:CALL &BC68
```

Think of this as SPEED WRITE 2. If you experience any **WRITE ERROR**s, just change the value of **a%**.

Fonts

One very easy way to make your work really stand out is to use a different font. This is just a different lettering style for your CPC. There's an easy way to demonstrate:

```
10·CLS:SYMBOL·AFTER·32:FOR·a=HIMEM·TO·HI
MEM+767·STEP·8
20·FOR·b=1·TO·4:a$=BIN$(PEEK(a+b),8)
30·POKE·a+b,VAL("&x"+a$)·AND·VAL("&x"+a$
)/2:NEXT·b,a
```

Or failing that, you might be designing fonts using *OCP Art Studio*. If so, you'll be wanting to load them back into memory. Insert these lines into your program:

```
SYMBOL AFTER 32
h=HIMEM+1
LOAD "filename.FNT",h
```

Replace the filename with the name of your font.

No reset

Probably the oldest one in history, this – it's for disabling CTRL, SHIFT and ESC method of resetting the machine:

```
POKE &BDEE,&C9
```

A few more POKEs

464 owners only, this time (it's the 6128's turn to feel left out) with a few functions that BASIC really does lack:



POKE &B4E7,&00 Shiftlock off
POKE &B4E7,&FF Shiftlock on
POKE &B4E8,&00 Capslock off
POKE &B4E8,&FF Capslock on

Showy

On a slightly more completely useless but relatively pretty note, try the following program, and see what you think:

```
10 OUT &BC00,1:FOR x=1 TO 40
```



problems with string editing. Never fear, Hairy's here. What follows is a new little routine for y'all to use (it's actually a BASIC vector, but don't let that discourage you):

202: KL INPUT 464 – &BD3A
664 – &BD5B
6128 – &BD5E

ACTION: Gets a string from the keyboard, reading keys into a buffer until RETURN or ESCAPE is pressed.

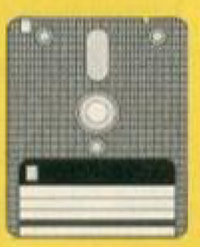
ENTRY: HL contains the address of the buffer (must be above &4000).

EXIT: If the line was terminated by Return, A contains &d and carry is true. If the line was terminated by Escape, A contains &FC and carry is false.

ALWAYS: Other flags corrupt, and all other registers are preserved.

Before you go charging ahead, though, there are a few things you should bear in mind:

- First off, bear in mind that he line is inputted using all the normal editing keys.
- The buffer is a string terminated by ASCII code zero. If it has characters in it when the routine is called then the cursor is placed at the start of the line and the current line is echoed to the screen.
- All control codes are echoed to the screen as graphics characters.
- The line can contain a maximum of 255 characters. When the routine exits the last character will be followed by CHR$(0), ready to call the routine again.



Why?

To flash the screen, just call &BD20. Why you'd want to do this, we really don't know…

```
20 FOR t=1 TO 50:NEXT t
30 OUT &BD00,x:NEXT x
```

Not many people...

There's something you may or may not know. If you don't, you will in about five seconds, and your life will be forever better for the knowledge:

If you own a disk drive, simply type in the name of the program you want to run. Hold down the Control key while you press the up arrow and the small Enter key, then let go of Control. It's dead simple, but we just thought you'd like to know.

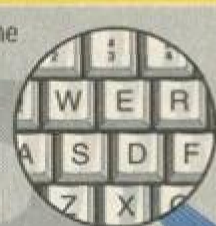
You've been FRAMEd!

For all those 464 owners who're getting a little tired of not having the FRAME command in their version of BASIC, they can just type CALL &BD19. Oh, yeah and this seems like the perfect opportunity to tell you we really think of Jeremy Beadle. He's CENSORED *(calm yourself, Simon – Dave).*

Hidden Lines

If you've just written a BASIC program that you want to protect in some way, there is a very simple solution. You can hide the first line by typing:

```
POKE 370,0
```



This will hide the first line of your program. This line could contain a GOTO command, therefore confusing everybody who lists it to try and work out what it's doing – what if the first (visible) line of your program started with END?

Unveiled!

Here's one that not many people will know about – extra Assembly instructions! The first one is the hidden SLL command (there are SRL commands, but no twins):

```
SLL (HL)       CB 36
SLL (IX+nn)    DD CB nn 36
SLL (IY+nn)    FD CB nn 36
SLL A          CB 37
SLL B          CB 30
SLL C          CB 31
SLL D          CB 32
SLL E          CB 33
SLL H          CB 34
SLL L          CB 35
```

Stringy things

Don't spend ages writing complex string routines – just point to your message with hl, and use RST 16,&0337.

Running BASIC

Running BASIC from Machine Code is a problem that plagued me personally for about a year. The answer is simple in the end, so use these bytes: &D7, &BD, &29, &C9

More opcodes

And just when you though it was safe to go back into your Z80, *AA* presents you with a complete list of undocumented opcodes, for your convenience, and utilisation (I could quite easily write American commercial blurb, you know). The other side is that if you include a few of these codes in your work, it should completely baffle anyone trying to hack it.

```
ADD A,XH    DD 84
ADD A,XL    DD 85
CP XH DD BC
CP XL       DD BD
DEC XH      DD 25
DEC XL      DD 2D
INC XH      DD 24
INC XL      DD 2C
ADD A,YH    FD
ADD A,YL    FD 85
CP YH       FD BC
CP YL       FD BD
DEC YH      FD 25
DEC YL      FD 2D
INC YH      FD 24
INC YL      FD 2C
LD A,XH     DD 7C
LD A,XL     DD 45
LD XH,A     DD67
LD XL,A     DD 6F
LD XH,XL    DD 65
LD XL,XH    DD 6C
LD XH nn    DD 26 nn
LD XL,nn    DD 2E nn
LD A,YH     FD 7C
LD A,YL     FD 45
LD YH,A     FD 67
LD YL,A     FD 6F
LD YH,YL    FD 65
LD YL,YH    FD 6C
LD YH,nn    FD 26 nn
LD YL,nn    FD 2E nn
```



Explosion

The simple way to create explosion effects:

```
10 ENV 1,15,-1,20
20 OUT &BC00,8:OUT &BD00,1
30 SOUND 1,0,300,15,1,,31
40 WHILE (SQ(1) AND &80)<>0
50 WEND
60 OUT &BC00,8:OUT &BD00,0
```

Screen swapping

Here's a nifty little tip to let BASIC users store two screens in memory at once, and switch between the two, which makes life a hell of a lot easier. The second screen sits at address &4000 and is summoned with CALL &BC06,&40. To use the normal screen, type CALL &BC06,&C0.

Graphics modes

You can always tell 464 owners in the street, because they carry the pained expression of someone without some very useful BASIC commands. One such command is GRAPHICS PEN. If you do want to set the graphics modes, though, all you have to do is print a CHR$(23) to the screen, followed by a 0 for normal graphics, a 1 for XOR, a 2 for AND and a 3 for OR.



Massive multiface cheat zone update

I remember the days when I first joined AA, and in issue 90 (my second ish, edited ably by Linda Barker, trivia fans), we did a complete Multiface cheat round-up of just about every game ever. Well, we thought this would be an absolutely excellent opportunity to treat all those who've only very recently joined us (there really are quite a few) to catch up on every Multiface cheat that we've printed in the mag since then. So if you add this list to your old one (issue 90's), you should have the most complete Multiface list of all time!

Those who haven't got issue 90 can get it from back issues as we flatly refuse to reprint all six pages of the list here – sorry, but we've got better things to do with your time.

A few more things:

- **All POKEs are for tape versions unless marked with a D, such as *Baby Jo*.**
- **Take a look at the *Balloon Buster* POKE. This means that if you want to get infinite time, you have to enter both POKEs.**
- **For a complete guide on using the Multiface, turn to the Cheat Mode pages and read the boxout entitled The Multiface Way – we couldn't see the point of putting it in the same issue twice.**
- **Have fun!**

Name	Addr	Poke	Effect
Baby Jo D	1503	AA	Infinite lives
	26EE	00	Infinite rattles
	2BFB	B7	Food stays on screen
	18AD	B7}	
	169C	B7}	Infinite speed
Balloon Buster	7B3E	39}	
	7B3F	7B}	Infinite time
Batman Movie	2153	AF}	
	24FE	AF}	
	3216	11}	Infinite time and lives
Bosconian	37D7	00	Infinite lives
Camelot Warriors			
	089E	00	Infinite lives
Capt America	97AC	A7	Infinite shields
Cauldron	9C83	00	Infinite lives
Chevy Chase	24E7	00	Infinite time
Contraption	5EC9	C9	Infinite lives
Crystal Kingdom Dizzy			
	A044	3A	Infinite lives
Dead Or Alive	52B0	00	Infinite lives
	514C	00	Infinite bags
	50D6	00	Infinite ammo
DJ Puff	0779	FF	255 shots
	0781	FF	255 lives
	1A38	No	No = number of records
Double Dragon 3			
	247B	00	Infinite coins in shop
	1A2B	B7	Infinite coins in fight
Fire and Forget	43D5	00}	
	445A	00}	Infinite fuel
Fruit Machine Sim			
	908B	64	Infinite credits
	8E5A	0E	15 nudges in box
	8E5B	0E	15 10p's in cash box
	8E5C	FF	25:50 in party time
	8E5D	FF	255 nudges in bank
Game Over Pt 1 (D)			
	046E	00	Infinite grenades
	1F37	C9	Infinite energy
	1F7C	00	Infinite lives
Game over Pt 2 (D)			
	046E	00	Infinite lasers
	1D5F	C9	Infinite energy
	1DA4	00	Infinite lives
Hero Quest (D)	3D24	00	Able to search room more than once
	3D25	No	No = number of moves

Game Cheats

There are new games, there are old games and there are timeless classics that'll never die. But while these games may have immortal life, you don't. Well, not until now, anyway. Stand by for the ultimate classic cheats collection!

Elite



Have we mentioned it'll be on AA100's covertape?

It's the game of the century, and it's coming up on our covertape with issue 100, so these tips should be come in handy.

First up, there's a handy way to dock with a space station without a docking computer. Simply hyperspace to a new system, and somehow get killed there. When you're returned to the title screen, press 'Y' to load a new commander. Instead, save your commander to tape, and return into the game. Lo and behold, you're docked

Witch Space: it's the dark, mysterious, fourth dimension you travel through when in hyperspace. If you want to visit it as opposed to screaming through it at quite a few light years per second, pause the game and press F. From now on, whenever you hyperspace, you'll appear in this no-man's land. If you want to get back out, just pause the game and press F again.

Here's a really fun one for disk owners – select the 'load new commander' bit, and give the commander name ELITE. You'll then get to play a game with a quite strange array of bugs – the best of which being your rear lobster. Remember NEVER to save the file back on to your disk.

As for actually using the Witch Space thang, here's a great little tip from a few months back:

1 Find a cluster of two or three systems no more than 2.5 light systems apart.
2 Sell all your cargo. If possible arm yourself to the hilt with a mining laser, cloaking device and energy bomb. They'll be very useful.
3 Enter Witch Space by choosing a hyperspace system, launching, pausing the game, pressing the F key, restarting and then hyperspacing. Switch on the cloaking device just before you go into hyperspace then destroy all but one Thargon.
4 Switch off the cloaking device and wait until Tharglets appear. Destroy Thargon and collect Tharglets.
5 Repeat this until you feel you have enough alien items, or are in danger of getting killed.
6 Enter normal system and abandon ship using escape pod. When you get your new ship you'll have a 35-ton cargo bay plus the alien items. Sell these and you can use the extra cargo space. This will disappear if you have to use the escape pod and aren't carrying alien items, but you can always repeat the process.

Batman

It's the original classic isometric game we're talking about here, again for the tape version, for infinite, well, just about everything, really:

```
IAAF 10·DATA·21,90,1c,36,00,c3,00,01,21,2d,22
IANB 20·DATA·36,d3,21,40,20,11,40,00,01,f2,01
JAFB 30·DATA·ed,b0,21,40,00,e5,21,00,bb,e5,21
JAKC 40·DATA·f2,01,e5,21,07,b8,e5,21,bb,02,e5
IAJD 50·DATA·f1,21,ea,b1,11,d9,b1,f3,c9
DAHG 60·MEMORY·&2000
FAHE 70·FOR·x=&BE00·TO·&BE34
CAJE 80·READ·a$
EAKM 90·POKE·x,VAL("&"+a$)
BAAP 100·NEXT
CAGB 110·LOAD""
DAAA 120·CALL·&3A6A
DABF 130·LOAD"!",&2040
DAGA 140·CALL·&BE08
```

Gauntlet

Here's a dead simple one for owners of the original tape version of this wonderful two-player romp-'em-up. All you have to do is complete the first set of levels, so that the next levels begin to load from tape. When you've managed this, simply fast forward your tape for a few seconds – when the levels are loaded, the program doesn't check that they're the levels they were

The lazy geek's ultimate labour saving device – the Multiface

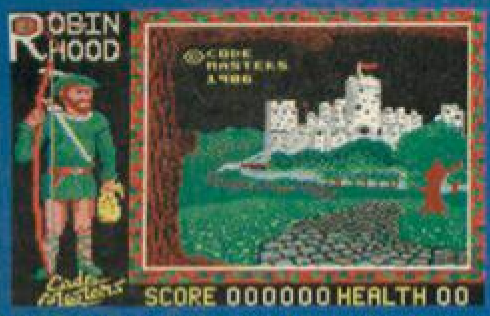
You see, the one utility for the CPC that was created for the sole purpose of cheating is the Multiface. The idea of the little black (and white and red) box is simple – you can freeze the CPC at any point, and examine or alter the contents of memory. This makes it the perfect accomplice for poking games. So, our 'Tip Of The Featur'e is, if you want an easy life, buy a Multiface. They cost £34.95 and are available from Romantic Robot, 54 Deanscroft Avenue, London NW9 8EN ☎ 081 200 8870.



Somehow, somewhere, sometime, your Multiface is going to save the day.

Secret CodeMasters

Here's a mind-blowingly simple one for owners of early CodeMasters games. On quite a few of them, try holding down the keys 6, A and P and the odds are that you'll have activated a cheat mode. Why they didn't feel the need to change the keys is pretty obvious (here's a clue – games that work with this cheat were written by Andrew and Philip Oliver).



The Oliver Twins so lazy they only came up with one cheat for all their games.

supposed to be, and subsequently you can skip loads of levels and see a lot of the later game.

Driller

Another really easy one – to do with speed. Being the original Freescape game, *Driller* is not exactly what you would call fast. However, if you do want to speed things up a bit when you're walking along, push the joystick forward as well as holding down the 'forward' key on the keyboard, and you should travel at twice the speed.

Head Over Heels

It's amazing! Unfortunately, we haven't bagged it for the covertape just yet, but we're working on it even as you read this. This is entirely beside the point now, so let's get on with a cheat for infinite lives on the tape version:

```
DACJ 10·MEMORY·&39AE
CAME 20·x=&BE80
CAEE 30·READ·a$
EAAF 40·WHILE·a$<>"xx"
EAGM 50·POKE·x,VAL("&"+a$)
CAPA 60·x=x+1
CAIE 70·READ·a$
BAGL 80·WEND
DACF 90·LOAD·"",&39AF
CAOP 100·CALL·&3A6A
DANG 110·LOAD·"!",&4000
DAEA 120·CALL·&BE80
GAJM 130·DATA·f3,21,00,40,11,00,bb,01
IAPA 140·DATA·f6,01,3e,8d,cd,df,be,21
HABD 150·DATA·46,bb,11,41,bb,01,b0,01
HAAN 160·DATA·3e,c4,cd,df,be,21,00,01
HAME 170·DATA·22,d6,bc,21,00,9f,22,d9
HABG 180·DATA·bc,21,00,a0,22,e0,bc,21
HADD 190·DATA·c0,0d,22,e3,bc,21,00,00
HAPJ 200·DATA·22,4c,bc,21,c4,be,22,f4
HAIG 210·DATA·bc,c3,c0,bc,21,72,24,11
HAJB 220·DATA·73,24,01,08,00,36,ff,ed
HAMG 230·DATA·b0,21,fd,be,11,6e,41,01
HABA 240·DATA·06,00,ed,b0,c3,00,01,32
IAEK 250·DATA·fc,be,7e,e5,21,fc,be,ae
HAOJ 260·DATA·e1,12,23,13,0b,3a,fc,be
IAGE 270·DATA·c6,0a,cb,ff,32,fc,be,78
HAHI 280·DATA·b1,20,e7,c9,00,3e,ff,77
FANG 290·DATA·f6,ff,c9,xx
```

Starquake

You might be interested to know all the teleport codes (go on you are really):
TALIS, QUORE, ANGLE, UPAZZ, SNODY, ZODIA, ELIXA, VOREX, ASCIO, AMBOR, KRYZL, RALIQ, INDOL, DULON and OPTIK.

Cybernoid

Another simple one for lovers of the Cecco classic – simply define the keys as Y, X, E and S, redefine the keys as you like them, and start the game. You should have infinite lives!

Batman The Movie

Hold down keys D, E, 2, O, and 9, and you will be progressed to the next level.



Did you know that Mark Hamill is the voice of the Joker in the Batman cartoon series?

Pipemania

The passwords for Pipemania are: FINE, NEWS, FAIL, SAIL, ERIC, TAPE, SLOW, and ACHE.



Aaaaahhh!

NZ Story

By typing FLUFFY slowly on the title screen, you should get infinite lives, and by pressing the large ENTER key, you'll progress to the next level.

Spindizzy

To get to a secret sub bit within the game, load it up, and when the title screen is displayed, hold down the F and X keys for a section called *Stix*.



Spindizzy was written by a Hawkwind fan and there are clues to this fact in the game.

Stormlord

Anyone having trouble with yet another Cecco masterpiece should type BRING ON THE GIRLS (without spaces) on the title screen and hear a little jingle, then pressing one to four to play that level with infinite lives.

Johnny Quest	8883	00	Stops animals
Karnov	40DB	00	Infinite lives
	5025	00	Infinite time
	40D4	00}	Keeps firepower
	00DF	02}	after death
	61BA	00	Infinite bombs
	799A	00	Infinite flames
Kettle	8EAD	00	Stops timer
Killer Gorilla	5118	00	Infinite lives
Legend Quest	A0F4	00	Infinite lives (numbers)
Light Corridor (D)			
	3B91	00	Infinite balls
Lotus E Turbo (D)			
	3A61	00	Infinite fuel (player 1)
	2686	00	Infinite fuel (player 2)
	417D	No	Qualify pos. (1 player)
	4161	No	Qualify pos. (2 players)
Microcosmica	659A	00	Stops days advancing
	659B	00	No landing tax
	74CC	FF	255 lasers
	74CD	FF	255 shields
	74CE	FF	255 exterior
	74CF	FF	255 interior
	74D0	FF	255 Mk 1 computer
	74D1	FF	255 Mk 2 computer
	74D2	FF	255 Mk 3 computer
	4DFA	FF	65,000 credits
Mr Freeze	7B69	00	Infinite lives
Nemesis	9D74	00}	Infinite lives
	9B9F	18}	and
	9BA0	05}	invulnerability
New Zealand Story (D)			
	C64A	No	No = number of lives
	5811	FF	255 lives in every game
	7E0C	C2	Infinite lives
Oink	4DF3	00	Infinite Lives
	4A98	35	Stops timer
OutRun Europa D			
	0E7E	No	No = number of boosts
	0E86	FF	255 credits
Popeye 3	2F2C	00	Infinite energy
Predator	A7A3	00	Infinite lives
	86B1	00	Infinite grenades
	35E5	00	Infinite bullets
	E6B5	00	Infinite time
Prehistorik (D)	4236	00	Infinite energy
	3219	A6	Infinite lives
	26C8	00	Infinite time
Real Ghostbusters			
	65BC	00	Infinite lives
	50CB	00	Infinite time
Return of the Witchlord (D)			
	39EF	00	Able to search room more than once
	39F0	No	No = number of moves
Robin Hood	8D6E	3A	Infinite lives (hearts)
Shadow Dancer	41F0	00	No walking enemies
	470E	A7}	Enemies don't shoot
	4729	C9}	or throw knives
Steg The Slug	2B61	C9	Infinite energy
	2B15	1F	Better bubbles
Sword Of The Samurai			
	3631	00	Infinite lives
Syntax	2607	00	Infinite lives
Tai Pan	2914	00	Stops date changing
Terramex	6821	AA	Infinite lives
Titus The Fox	1F7A	No}	
	2147	No}	No = number of lives
	2011	No	Number of energy bars
Turbo The Tortoise			
	588F	FF}	
	5E57	FF}	Infinite lives
Wonderboy	52CD	C0	Infinite axes
WWF	09A9	FF	More energy
	2A67	00	Infinite lives
Yogi's Great Escape			
	07CC	A7	Infinite lives
Zap'T'Balls PD (D)			
	0271	FF	255 lives
	080B	00	Infinite time
Zolyx	4390	00	Infinite lives

Serious software

The mag that helps you work, rest and play reveals how to make the work bit less of a chore...

General tips

Standard grids A little bit of effort in setting up standard grids when you're word processing can save you loads of time and effort later on. For example, you write loads of letters, set yourself up a grid which has your address in the top right corner, a 'Dear.....' at the start of the letter and:

'Yours faithfully/sincerely,
John Smith (or whatever your name is),'
at the bottom. Then save this as a file.

When you want to write a letter you then just have to boot your word processor and load up your standard letter file, type in your letter without having to bother with the address, and deleting either the faithfully or sincerely as relevant. When you save the letter give it a different name so that your original letter grid will be intact and ready for use another time.

This same principle can be used for databases and spreadsheets; if there are standard elements you want on new grids, save a template grid.

A matter of taste It's important to have your word processor, database or spreadsheet tuned to your tastes. This makes life easy and production a lot faster. Things such as choice of colours and key combinations may seem trivial, but if you constantly use a package trivial irritations can mount into major annoyances.

Storing phrases When you're using a word processor it is handy to have often-used phrases or sequences of control codes available at the touch of a single key. This effect can be implemented using BASIC's KEY command. For example, try entering this line:

```
24 Key 0,"Amstrad Action"+CHR$(13)+"
Future Publishing Ltd"+CHR$(13)+"30
Monmouth Street"+CHR$(13)+"Bath"+
CHR$ (13)
```

And of course...

The best tip of all is 'buy *Amstrad Action* every month'. It's always packed with advice that'll make using your CPC a whole lot easier. In fact, you're best bet would be to subscribe (see page 56) so you never miss a copy.



That looks familiar.

This will enable you to call up our address just by pressing Function Key 0. `CHR$(13)` is the ASCII code for end-of-line.

You can assign whatever strings you like to each of the 32 Function Keys (remember that you can use SHIFT plus and Function Key and CONTROL plus a Function Key). None of the strings can contain over 120 characters, though.

Screen printing A dead handy, and short, listing that dumps all on-screen text to a printer:

```
10 POKE &BB5A,&C3
20 POKE &BB5B,&2B
30 POKE &BB5C,&BD
```

Disk cataloguing Keeping track of what's on your disks can be a bit of a chore, but this should make things less of a hassle:

- Switch on your printer and enter `Print #8, CHR$(27)+"A"+CHR$(5)+CHR$(27)+"M"+CHR$(15)` in direct mode.
- Enter CP/M, type `DIR`, hit Control P and press Return.
- After printing press Control P.

What should come out of the printer is a directory of the disk in condensed print – the perfect size for a disk label.

It may be obvious, but... When you're setting up a database always remember that the lengths you specify for strings directly affects the amount of records you can store altogether – the shorter the strings, the more records you can fit in memory at once.

Protext

- When using *Protext*, you'll almost undoubtedly use different rulers (the bits setting up page width, tabs, etc). It really does make sense to construct several individual files with a ruler in each, and use the block load command to insert a ruler into the text.
- We've found a method of killing that irritating flashing cursor. All you have to do is POKE the number `&c9` into address `&BB7e`. Simple, really. If you have the disk version, you'll do this by altering the *DISC2* program to contain the line:

```
75 POKE &BB7E,&C9
```

Tasword

- There are times when you don't want pairs or sets of words to be split over two separate lines – names of roads or people for example. To stop this happening you need to insert a hard space so the program thinks that two words are, in fact, one (there are other ways but this is by far the simplest and simplicity is what this feature is all about, after all). In *Tasword* this is achieved by typing in the first word, pressing CONTROL and \ then typing in the space and your second word.
- POKEs for a word processor? Believe it or not, yes. What are they, though? Well, there are four addresses to examine:

6632 – page number header space
6633 – header text space
6634 – footer text space
6635 – page number footer space

You can alter the values at these addresses to give yourself more or less space.

BooTracker

Always use *BooTracker* to construct musical files for your programs. Actually, to be honest, it pales in comparison to stuff like *Soundtrakker*, but I wrote it, so it's fab (*I knew I shouldn't have let Simon loose with this feature – Dave*).

OCP Art Studio

- For anyone whose *OCP Art Studio* irritatingly crashes (as all software can) at really inconvenient times, the version of the screen that would be recalled if UNDO is used is stored in bank `&c5`, and will therefore survive a soft reset. You can therefore restore screens with the following program:

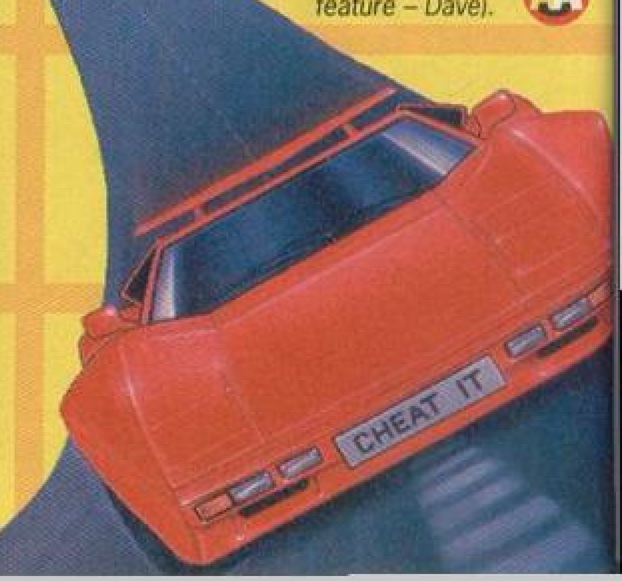
```
10 MEMORY &3FFF
20 OUT &7F00,&C5
30 SAVE "restored.scr",b,&c000,&4000
```



Next time we mention OCP Art Studio we promise to get a new picture.

- First off, there's the magnify option. Many people (especially those who have to live life without a mouse) will find it a constant pain to continually slide the cursor around the screen just to shift the magnification box a tad to the right, or whatever. This is no longer necessary, however, as you can now use the cursor keys (in conjunction with Control) to shift the window, and the zero and full stop to swap pens.

With the character editor, the cursor keys (once again with Control), should select the character you're editing.



Basic instincts

If you're a complete programming novice you need to start with the BASICs (bad programming joke – Ed) in which case Sentinel's latest batch of tutorial booklets are worth checking out. Simon takes a PEEK (does that even qualify as a joke? – Ed).

Robin Gilbert, it seems, is a man with a mission – to make the world computer literate. A while back he wrote a series of Machine Code tutorials, the review of which you can find in issue 91. Then he wrote a couple more tutorials, covering demo programming and sprite manipulation, which we reviewed last issue. There ends the saga of the Machine Code tutorials. But not our story…

Following the storming success of these booklets, Sentinel (who started selling them as opposed to Pipeline Software, the original retailers) in conjunction with Gilbert decided to release a range of BASIC tutorials along the same lines. We reviewed them in *AA98*. Oh, that's now, isn't it? Keep reading then…



Dave would like to point out that it is not him in this photo. He'd like to but he can't, because it is him. Hah! Exposed!

So what's in it for me?

So why should you want to learn Basic? Could it be perhaps that:

1 It's incredibly easy to learn.
2 The rules of the language are universal across every computer that can run Basic (which is nearly all of them).
3 Easier to debug than Machine Code.
4 It's just complicated enough to make you look clever… (*I like the sound of that – Dave*).
5 …but it's simple enough so that you don't have to be (*definitely sounds like my kind of language – Dave*).

There are seven booklets in total:

- ***TP20A, A Beginner's Guide:*** This one covers the bare fundamentals of computer language, the structure of BASIC, what it's used for, and some rudimentary commands, techniques, etc.
- ***TP20B, A Beginner's Guide:*** Being the sequel to the first book (which hopefully will have whetted your appetite), it deals with slightly more complex commands and guides the user while they become a little more familiar with the simpler commands of the language.
- ***TP21, An Amateur's Guide:*** If you thought you'd got to 'proficient', think again. This guide deals with more complex data structures, branched subroutines, external AMSDOS commands (buy it and find out), variable filing and basically all the slightly more complex bits that you'll need to know in order to progress.
- ***TP22, Graphics Techniques:*** What do you think? This time it's drawing, colouring text, blending text and graphics, shapes, palette animation techniques, defining user characters and just about everything else you could possibly do with graphics in BASIC.
- ***TP23, File Handling:*** This covers saving and loading information, binary and ASCII files, disk formats, and, well, filing really.
- ***TP24, Writing Arcade Games In BASIC*** (Stifled giggle): Yes. Don't call us, we'll avoid you like the plague. *Writing Arcade Games In BASIC*. Yes. Techniques, and stuff. Yes.
- ***TP25, Writing Adventure Games In BASIC:*** Now this is more like it! Using a language that's fab at handling strings 'n' things to create a fabulous text adventure! Wow! (*But we're doing all that stuff in AA anyway – Dave.*)
- ***TP26, Advanced Applications Programming:*** Further techniques



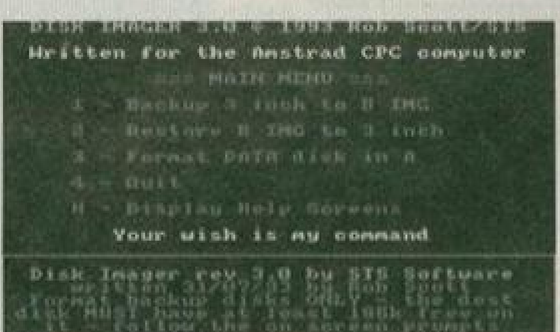
Let's face it – if Dave can learn BASIC from these tutorials, anyone can.

Packin' 'em in

Four disks in one! That's what you'll end up with if you use Disc Imager. Er, great… why? Ah-ha, that's what Simon's just about to reveal.

The idea behind this type of package is almost completely a cost-saving one, as a reaction to both the ludicrous price and falling availability of 3-inch disks in relation to 3.5-inch disks (the industry no longer manufactures 3-inch disks). *Disc Imager* enables you to store all the data from a 3-inch disk as a single file on an 800K 3.5-inch disk. This means that you can archive four disks on to one, spending about 50p on a 3.5-inch disk as opposed to £12 on four normal disks.

So how does *Disc Imager* compare with *SDA*, the package from SafeSoft which we reviewed in issue 94? Well, I ran a simple little benchmark test which involved archiving my work disk using both packages. The original disk held 120K of data.

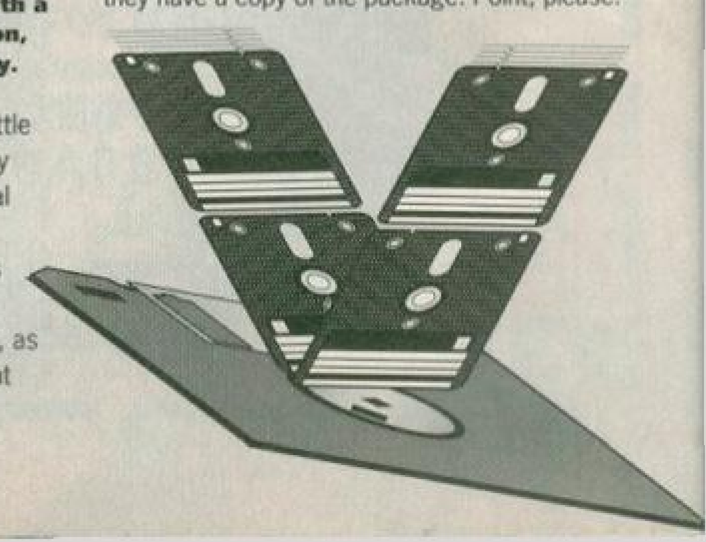


It took me a whole week to come up with a Disc Imager gag that fitted into a caption, and in the end I ran out of space anyway.

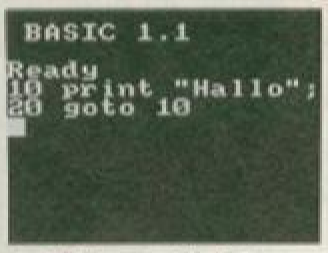
Compression: The first thing you'll notice is that *Disc Imager* does not compress the disk, causing the destination file to be 180K, as opposed to the more stomachable 142K that *SDA* produced.

Formats: Whereas *SDA* copes with both data and system formats, *Disc Imager* only likes data formatted disks. *Disc Imager* does have a built-in formatter, though.

Encryption: *Disc Imager* will automatically encrypt archived files, the only problem being that the XOR code is neither displayed or requested, so anyone can access encrypted files, providing they have a copy of the package. Point, please?



in writing word processors, DTP packages, spreadsheets, accounting, databases and menu-driven systems.



So that's what he's been up to. Dave, this was childish back in 1982.

The guides follow the usual format; each is around 30 A4 pages thick and stuffed full of programs, information tables and concisely written copy on every subject. Probably the only hassle with the guides is the font (lettering style) that the writers have used for the BASIC listings; it's not exactly very easy to read (perhaps we should send them a copy of our CPC font).

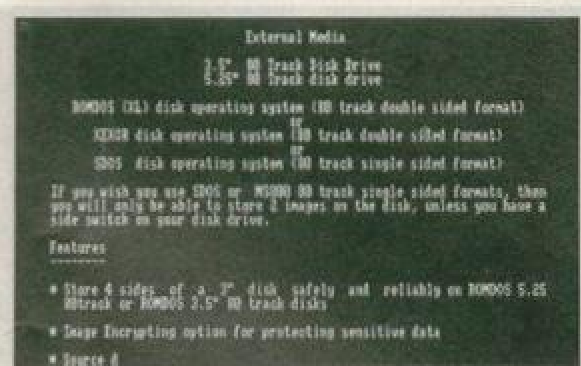
From a beginner's point of view, these guides are excellent. The first three act as a very gentle introduction to both the technicalities and the theory of BASIC programming, with the final guides giving helpful and incredibly detailed information on the various aspects and specialised uses of the language.

In short, if you want to learn BASIC programming and the stuff we do in *AA* doesn't go deep enough quickly enough, these are the books for you. Working at your own speed is always a good idea when learning stuff like a new language, and these books let you do that.

Each book costs £3 which works out at 10p per page. If you think this is a little steep, think again. Each title is well worth the money; they're brilliant examples of quality over quantity. **Simon**

Details

PRODUCT: **Basic Tutorial Booklets**
PRICE: **£3 each.**
AVAILABLE FROM: **Sentinel Software, 41 Enmore Gardens, East Sheen, London SW14 8RF**
☎ 081 876 7032.



So in the end, you see, I had to leave it out completely – what a downer, to be sure.

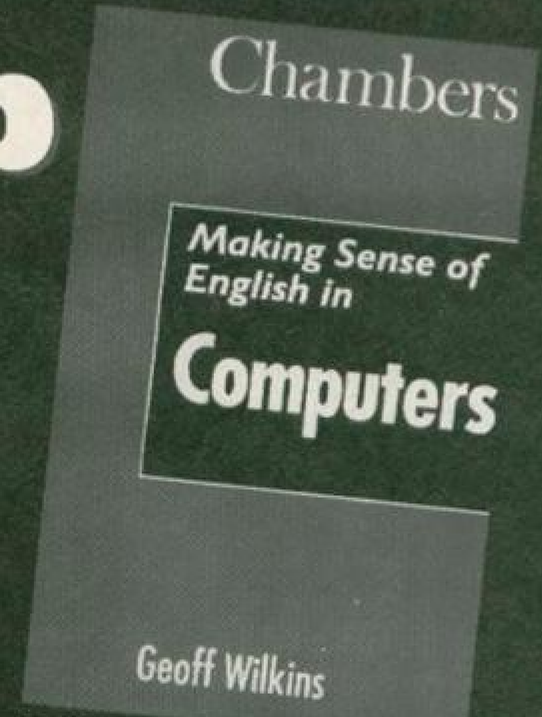
When it comes to the crunch, I reckon that *SDA* is the better package, but frankly, I wouldn't bother buying either. Cynical? Not at all. It's just that we're planning to one or the other on the covertape in the next couple of months. So sit tight, and soon all your storage problems could be a thing of the past (probably). **Simon**

Details

PRODUCT: ***Disc Imager***
PRICE: **£10 (disk only)**
AVAILABLE FROM: **STS Software, 10 Lakin Drive, Barry, South Glamorgan, CF6 5AH**
☎ (0446) 746920.

From ASCII to Zap

Do you speaka da lingo? If you don't, then get your digits on the latest addition to the Chambers range, a guide to computer jargon. Simon thumbs through...



For those of you viewing in black and white this cover is a deep red with blue and white highlights.

You're sitting in a pub, when one of those really argumentative people who seem to populate pubs tries to entangle you in some kind of 'discussion' about computing science. You realise, to your utmost dismay, that you're an utter puddinghead when it comes to computers – you've played a few games in your time, but when it comes to anything more technical you're way out of your depth.

If this situation (or something vaguely like it) sounds familiar what you need hidden about your person for quick reference is Chambers' latest tome, *Making Sense Of English In Computers* by Geoff Wilkins. What's it all about, then?

Well, it's a fun little red paperback, selling at £5.99, providing an A to Z of various words, acronyms, phrases and other jargon you'll encounter from day to day in the computer world, everything from addresses to Zmodems. The big question is will it be of any use to someone computer-illiterate enough to need it? There's one easy way to find out; let's check out a typical Chambers definition of a typical piece of computer jargon:

> **FONT** A typeface: a collection of character shapes matched in design. Well-known examples are Times, Courier and Helvetica. The term is also used to describe the differences in weight (normal or bold), posture (upright or oblique/italic) and size.

Now here's the Hairy Happening™ definition: A font is a style of lettering used in printing, and there are loads of different fonts (an infinite amount, in fact, limited only by font designers' imaginations). The headline to this page is in one font, and the caption text is a completely different font. The main text is yet another font, as is the lettering we use for listings. Get the picture?

The point is simple – if you could understand from the book's definition of a font exactly what a font is, then the book's probably at the right level for you, but I reckon you might have to do quite a bit of cross-referencing if you're a complete computer novice.

The range of entries is comprehensive and there seem to be no major omissions, though don't expect in-depth explanations of error codes or the like. Though there's a bias towards PCs most of the entries are applicable across all formats. It's not a guide to computing, so don't think you'll pick *Making Sense* up and learn everything you need to know from scratch. But if you're a relative newcomer to computing it's a useful book to have around. **Simon**



In trials three out of three Amstrad Action writers said they preferred Chambers' Making Sense of English In Computing to any other cat food.

Details

PRODUCT: ***Making Sense Of English In Computers* by Geoff Wilkins**
PRICE: **£5.99**
PUBLISHER: **Chambers**
AVAILABLE FROM: **All good bookshops (you decide what a bad bookshop might be)**
ISBN 0-550-18050-8

Flippin' 'ell, It's Sentinel

So, what does an independent software house do? Well, they might develop their own software. Or import it from Europe. Or provide an outlet for amateur programmers to sell their stuff. Or produce tutorial books. They might even do the whole lot like Sentinel do, as Simon found out...

During my first month on *AA*, I had to review a game called *Zap'T'Balls*. It was billed throughout Europe as, 'the best game ever on the CPC'. Personally, I didn't think so, but still gave it very healthy 85 per cent. To cut a long story short, a lot of people disagreed with me very heatedly, and we received a lot of outraged letters and phone calls here at the office. One of those who reacted a whole lot more rationally was Richard Wildey of Sentinel Software, which might seem surprising because they were the company that was importing the game into the UK in the first place.



Ball Bearing – okay, so I was a little harsh, but what I said is still true – you can still get it on PD.

It was this kind of level-headed attitude that's got Richard's company as far as it has in the few months that it's been around. If he continues to have the success he's having, we could be looking at a major force on the CPC scene. I thought a quick trip to London was in order to visit Richard, and find out what Sentinel was all about:

So, Richard, how exactly did you get started with Sentinel?

It all started in January this year, when I began to import *Zap'T'Balls* from Europe.



When he's not screaming around on the race track Richard occasionally uses a CPC, and maybe even sells few things.

This was the original reason for starting up – to import European titles into the UK, beginning with *Zap'T'Balls* and carrying on with whatever else came along. I just felt that the UK was really missing out on what some of the French and German programming teams had to offer.

Why did this import scheme stop after *Zap'T'Balls* and *Soundtrakker*?

To be honest, I didn't find the European teams all that co-operative with what I was trying to do, so I decided to concentrate on programming teams closer to home for a while.

Zapped

How do you feel about the almost controversial review of *Zap'T'Balls*?

When I first saw *Zap'T'Balls*, I thought it was very good – I still do. At the time, though, I hadn't played *Pang* but I have now, and to be quite honest, I thought the collision detection, graphics and music are all better in *Zap'T'Balls*, as well as the overall presentation.



It's the ice world of Zap'T'Balls – we gave it 85 per cent and we stand by that mark.

What about the lack of in-game features that made *Pang* so excellent?

Out of the two, I think *Pang* is more playable, but then again, *ZTB* (only £13.99) is quite a bit cheaper than a cart. It'll also run on the standard CPC and is still an excellent, perfectly playable game in its own right. If you don't believe me, send an SAE and a disk for a free five-level demonstration version.



Richard Wildey reckons Zap scores over Pang, though, in the collision detection department.

So which side of the fence do you sit on – graphics, or gameplay? What's more important?

I believe that you can still have a good game without amazing graphics or sound, but they are factors that help increase the longevity of a game.

What about games with fab graphics and sound but no gameplay?

Games like that are called *Nightbreed*.

'Nuff said, apart from the fact that the Zap's compatibility problems with the Plus models have been ironed out.



Simon reckons it's almost as if the programmer wrote a game that accomodated all his flashy special effects.

Does this mean you won't be considering any more European titles in future?

Oh no. If anything comes our way, we'll definitely consider it, we'll just be looking a little more carefully in future.

So, Richard, what have Sentinel got coming up for us?

At the minute, there's nothing else actually ready for release, but we've got a few bits and pieces in the pipeline.

So you will be willing to view titles from hopeful programmers?

Oh yes, but not just finished packages. If anyone has anything they think we'd be able to use, be it an idea, a routine, or anything, we want to speak to them.

Okay then, what's your attitude towards the CPC market in general?

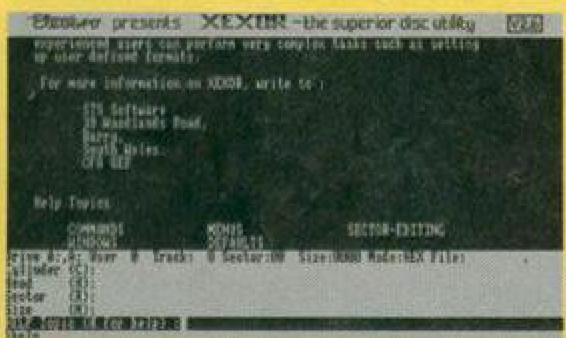
We can't deny that it's quite obviously declining, but Sentinel Software will continue to support it. We also support fanzines, mainly *CPC User* and *WACCI*.

And so who are your target audience?

We don't really aim at one particular ability group – anyone with a CPC can find something we're selling that they'll enjoy and find easy to use.

And the type of software you aim for?

Again, we don't really have any target – more recently, we've been concentrating on serious software, but *Ball Bearing* and *The Undersea Adventure* (still undergoing work) look set to swing the balance again.



This is Xexor, probably the most powerful disk utility in the world. Great – what the hell am I supposed to do with the rest of this caption?

When is *Undersea Adventure* due out?

We're hoping to get it finished within the next month, but we can't really make any firm guarantees about release dates just yet.

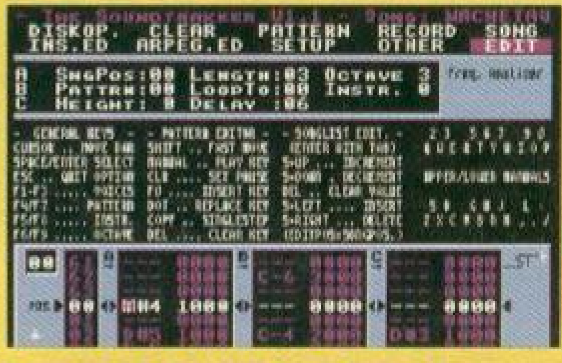
I'm also planning some new tutorials, following in the same line as our existing range (*see the review on page 14 – Dave*).

Campursoft have just released *ProPrint* on ROM. Do you have any plans to follow suit?

Frankly, we took a look at the situation, and it just didn't seem feasible.

So you don't feel like you're in direct competition with anyone?

No, not really. The more software houses that appear on the scene, the better it is for the life of the machine; it's healthy competition that sorts out the good quality software from the tat that people would release otherwise.



Soundtrakker received an absolutely wonderful mark from Tim Norris, who sat around for hours creating loads of tunes.

How do you feel about the STS split (*reported last month, folks – Dave*)?

It is a shame it had to happen, but if it means more software for the CPC and a bit more healthy competition, good luck to them. I'm currently selling *Xexor* (Quantum's first release – a disk utility), and if anything comes along by STS, I'd look into selling that as well.

So do you have any plans to branch out?

We're looking into covering the PC market, but even if we manage that, we'll still be giving plenty of support for CPC users; we won't slow down on that front.

What about other plans have you got within the CPC market?

We're not only a software house, anyway – I think the excellent reviews that the tutorials have received back up that fact quite adequately. We're not planning to do anything on the hardware side, though. Incidentally, I will be contributing to *Better Than Life*, the new disk fanzine that Richard Fairhurst is setting up.

Okay then Richard, you've got the one-time only chance to blatantly plug the title of your choice – go for it.

I think *Pro-Ext* is definitely worth a mention – we've modified the package to get it working with disk version of *Protext*, and added a lot of new features, such as a font editor, and a charting module (for printing bar charts and pie charts).

Thanks Richard Wildey, and good luck and all the best in the future.

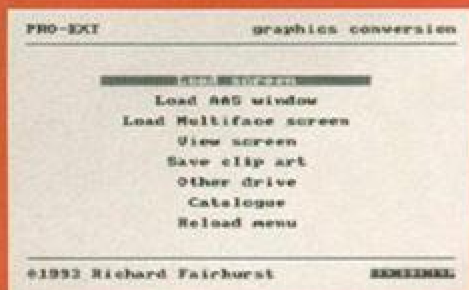
The Sentinel stock list

So what have Sentinel got on the market at the minute? Let's take a look:

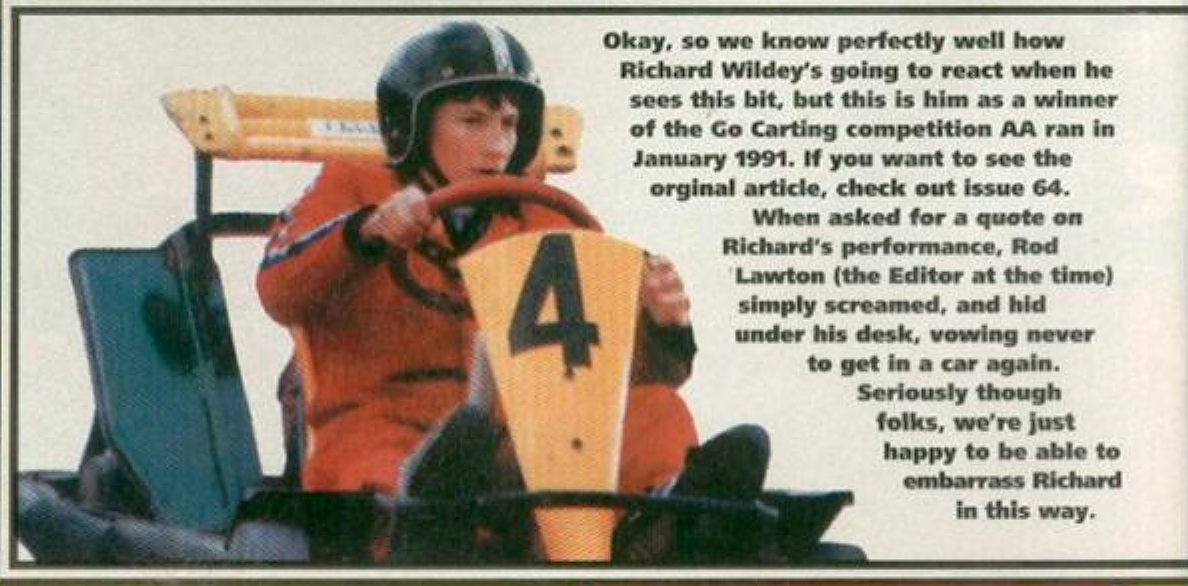
- *Zap'T'Balls* – A *Pang* clone that received 85 per cent in ish 89.
- *Soundtrakker* – The excellent 93 per center of issue 92.
- *Pro-Ext* – A *Protext* enhancer that unfortunately was just pipped to the post by Campursoft's *ProPrint* in issue 95.
- *TUSS* – The sprite searcher reviewed last month.
- *Xexor* – An excellent disk utility package, coded by Quantum, reviewed in issue 96.
- *SmArt Plus* – Rob Buckley's art package for the Plus range, reviewed in issue 95.
- *Ball Bearing* – The bouncing balls game of last issue, scoring an unfortunate 40 per cent.
- Coding Tutorials – They've been around for absolutely aeons, and are all absolutely fabulous. Send off to Sentinel for a complete list right now!

Details

Sentinel Software, 41 Enmore Gardens, East Sheen, London SW14 8RF
☎ 081 876 7032



This is the graphic file converter, supplied free with Pro-Ext.



Okay, so we know perfectly well how Richard Wildey's going to react when he sees this bit, but this is him as a winner of the Go Carting competition AA ran in January 1991. If you want to see the orginal article, check out issue 64. When asked for a quote on Richard's performance, Rod Lawton (the Editor at the time) simply screamed, and hid under his desk, vowing never to get in a car again. Seriously though folks, we're just happy to be able to embarrass Richard in this way.

WIZARD GAMES

1 NORTH MARINE ROAD, SCARBOROUGH, NORTH YORKSHIRE, Y012 7EY IF YOU'RE IN THE SCARBOROUGH AREA, COME IN AND SEE US. OPEN: Mon-Sat 9.00am-5.30pm, Sun 10am-4pm. TEL: 0723 376586

AMSTRAD CASSETTES

2 PLAYER SUPER LEAGUE £2.99
3D TENNIS £2.99
4 SOCCER SIMULATORS £2.99
5-A-SIDE SOCCER £1.99
ADDAMS FAMILY 128 only £3.75
BALLOON BATTLES £2.99
BANGER RACER £2.99
BATMAN £2.50
BOMBJACK 2 .... £2.99
BONANZA BROTHERS £2.99
BUBBLE BOBBLE £3.75
BUGSY £0.99
CHAMPIONSHIP GOLF £2.99
CHIPS CHALLENGE £2.99
CHUCKIE EGG £2.99
COLOSSUS BRIDGE £2.99
CRAZY CARS 3 .... £5.99
CRICKET MASTER £2.99
CUP FOOTBALL £2.99
DAN DARE £1.99
DARKMAN £3.75
DIZZY PRINCE OF YOLKFOLK £3.75
EDD THE DUCK £2.99
ESWAT £2.99
EURO 2, EUROCUP £2.99
EURO BOSS £2.99
EUROPEAN SUPER LEAGUE 128 .... £2.99
F1 TORNADO £2.99
F15 STRIKE EAGLE £2.99
FIREMAN SAM £2.50
FIRST PAST THE POST £2.99
FUN SCHOOL 4 UNDER 5'S £5.99
G-LOC (128) £2.99
GAUNTLET 3 (128) £3.50
GRAND PRIX £2.99
GREEN BERET £2.50
HEROES OF THE LANCE £3.99
INTERNATIONAL FOOTBALL £2.99
INTERNATIONAL MANAGER £2.99
INTERNATIONAL RUGBY £1.99
JETSONS £3.99
JAHANGAR KHAN SQUASH £2.99
KICK OFF £1.99
KICK OFF 2 .... £3.99
LEAGUE CHALLENGE £2.99
LEAGUE FOOTBALL £2.99
LINE OF FIRE £2.99
MASTERS OF THE UNIVERSE £2.99
MERCS £2.99
MIG 29 .... £2.99
MINI OFFICE £2.99
MOTOR CYCLE 500 .... £2.99
MULTI-PLAYER SOCCER MANAGER £2.99
MYTH £2.99
NARCO POLICE £2.99
NINJA SPIRIT £2.99
NINJA REMIX £2.99
OBLITERATOR £2.99
ON THE BENCH £2.99
OUTRUN EUROPA/G LOC £3.99
PERISCOPE UP £1.50
PIT FIGHTER/SUPER SPACE INVADERS £3.99
PLATOON £2.99
PLAYDAYS AGE 3-8 .... £9.99
POTSWORTH & CO. £3.99
PREDATOR 2 .... £2.99
PRO BOXING SIM £1.99
PRO GOLF £1.50
PRO SKI SIM £1.99
PRO SNOOKER SIM £1.99
PRO TENNIS SIM £1.99
PROFESSIONAL FOOTBALLER £2.99
PUB TRIVIA £2.99
RBI BASEBALL 2 .... £2.99
RAINBOW ISLAND £3.75
RALLY SIMULATOR £2.50
RUGBY COACH £1.99
SEYMOUR GOES TO HOLLYWOOD £2.99
SHADOW DANCER/ALIEN STORM £3.99
SIMPSONS £3.75
SNOOKER MANAGEMENT £2.99
SOCCER PINBALL £1.99
SOCCER RIVALS £2.99
SOCCER Q £2.99
SOOTY'S FUN WITH NUMBERS - UP TO 7 YEARS £8.50
SPELLBOUND DIZZY £3.75
SPITTING IMAGE £3.50
STAR DUST £2.99
STRIKE £2.99
STRIKER MANAGER £2.99
SUPER CARS £3.50
SUPER MONACO G.P. £2.99
SWITCHBLADE £2.99
SWIV (128) £2.99
TERMINATOR 2 .... £3.75
TERRORPODS £2.99
TEST MASTER £2.99
THE BOXER £1.99
THE NATIONAL £2.99
THOMAS THE TANK FUN WITH WORDS AGE UP TO 7 .... £8.50
TOYOTA CELICA RALLY £3.50
TREBLE CHAMPIONS £2.99
TRIVIAL PURSUIT £2.99
VENDETTA £2.99
VULCAN £5.99
WAY OF THE EXPLODING FIST £2.99
WORLD CUP £2.99
X OUT £2.99
YES, PRIME MINISTER £1.99

TURTLES SPECIAL
TURTLES GAME + TURTLES COMPUTER COLOURING BOOK - DOUBLE PACK £3.99

AZIMUTH HEAD ALIGNMENT KIT £3.99

BUDGET CASSETTES - £1.99 EACH

4 MOST CUTE
4 MOST HORROR
4 MOST SPEED STUNT
AIRBORNE RANGER
AMERICAN TURBO KING
ARCADE TRIVIA QUIZ
AUF WIEDERSEHEN MONTY
BALL BREAKER (BREAKOUT GAME)
BRAVE STARR
BULLY'S SPORTING DARTS
CABAL
CLASSIC ARCADIA 3
COLOSSEUM
DOUBLE DRAGON
DOUBLE DRAGON II
DRAGONS OF FLAME - (ADV - DUNGEONS & DRAGONS)
DYNAMITE DAN
EUROPEAN SOCCER CHALLENGE
FEAR (STORM 2)
FIRELORD
FOOTBALLER OF THE YEAR
FORGOTTEN WORLDS
GAME OVER II
GARY LINEKER'S SUPERSKILLS
GEMINI WING
GEOFF CAPES
HAVOC (HELICOPTER SIMULATOR)
I BALL 2
JIMMY'S SOCCER MANAGER
MARAUDER
RECKLESS RUFUS
ROLLING THUNDER
RUGBY COACH
SARACEN
SHINOBI
SIDE ARMS
TAG TEAM WRESTLING
TROLL
TURBO BOAT SIMULATOR
VIRGIN ATLANTIC CHALLENGE

ANY 5 OF THE FOLLOWING CASSETTES FOR £5

ACADEMY
BAT BLIP + INVADERS
BLADE WARRIOR
CALIFORNIA GAMES
CLASSIC TRAINER
GALAXY FORCE
GRAHAM GOOCH MATCH CRICKET
GRAND PRIX SIM
KENNY DALGLISH SOCCER MANAGER
MYSTICAL
OPERATION GUNSHIP
OUT RUN
POWER DRIFT
PRO POWER BOAT
PRO SNOOKER
ROOM TEN
SAMURAI TRILOGY
SHARKEY'S MOLL
TEENAGE QUEEN (S. POKER)
TIN TIN ON THE MOON
WELLTRIS (3D TETRIS)

DISK COMPILATIONS

TOLKIEN TRILOGY £9.99
THE HOBBIT/LORD OF THE RINDS/SHADOWS OF MORDOR

INTEGRAL (FRENCH INSTRUCTIONS) £9.99
LOTUS ESPRIT/SUPER SCRAMBLE/TOYOTA CELICA GT/SUPER CARS

CHAMPIONS £9.99
JAHANGAR KHAN SQUASH/MAN UTD IN EUR

GALACTIC GAMES £5.99
100M SLITHER/SPACE HOCKEY/PSYCHIC JUDO/HEAD THROWING/METAMORPH MARATHON

HIGH ENERGY £12.99
NORTH + SOUTH/TIN TIN ON THE MOON/FIRE + FORGET/TEENAGE QUEEN/HOSTAGES

LOOPZ COLLECTION £3.99
EMLYN HUGHES ARCADE QUIZ/AUDIOGENIC/HELTER SKELTER

THE COLLECTORS (FRENCH INSTRUCTIONS) £9.99
SHADOW OF THE BEAST/SUPER CARS/SWITCHBLADE/LOTUS ESPRIT/GHOULS 'N' GHOSTS

4 SOCCER SIMS £4.99
11-A-SIDE SOCCER/5-A-SIDE INDOOR/STREET SOCCER/SOCCER SKILLS

HERO QUEST £9.99
+ RETURN OF THE WITCH LORD

SOCCER SPECTACULAR £9.99
WORLD CHAMPIONS/PETER SHILTON'S HANDBALL MARADONA/SOCCER SUPREMO/FOOTBALL MANAGER/PETER BEARDSLEY'S INTERNATIONAL FOOTBALL

DARK FORCE £6.99
MIDNIGHT RESISTANCE/NIGHTBREED

11 GAMES + WORD PROCESSOR £6.99
HANGMAN/FRUIT MACHINE/BRIDGE IT/EASI AMSWORD/ROLAND ON THE ROPES/ANIMAL, VEGETABLE, MINERAL/OH MUMMY/HARRIER ATTACK/THE GALACTIC PLAGUE/ROLAND IN THE CAVES/SULTAN'S MAZE/TIMEMAN ONE

COMPUTER HITS 4 .... £7.99
ANTIRIAD/REVOLUTION/DEACTIVATORS/DANDY/STARQUAKE/SPIN DIZZY/ELEKTRAGLIDE

GX4000/6128+/464+ CARTRIDGES

SWITCHBLADE £8.99
NO EXIT £15.99

* * * * WIZARD'S VERY SPECIAL OFFER * * * *

30 CAP 3" DISK BOX £6.99
3" BLANK DISKS .... *EACH* £1.00
5 X 9512 PRINTER RIBBONS £8.99

Just arrived - 2,000 Amstrad Cassettes - Our choice any 12 for £5.00

AMSTRAD DISKS

ACTION FORCE £5.99
A.D.A.M. ASSEMBLER + DISASSEMBLER MONITOR £5.99
BACK TO THE FUTURE 2+3 .... £9.99
BATTLE OF THE BULGE £9.99
BONANZA BROTHERS £5.99
CAPTAIN BLOOD £6.99
CASH BOOK £5.99
CISCO HEAT £4.99
CLUEDO £4.99
COLOSSUS CHESS £8.99
COLOSSUS CHESS PCW £6.99
COLOSSUS BRIDGE PCW £6.99
DALEY THOMPSON'S OLYMPIC CHALLENGE £6.99
DAN DARE III £5.99
DARK SCEPTRE £6.99
DISCOVERY (EDITOR, ASSEMBLER, MONITOR, DISK NURSE, UTILITIES) £7.99
DOUBLE DRAGON 3/RODLANDS £9.99
EQUINOXE - MUSIC SOUNDTRACKER, COMPOSE YOUR OWN MUSIC WITHOUT MUSICAL KNOWLEDGE 12.99
FOOTBALL MANAGER + EXPANSION KIT £7.99
FOOTBALL MANAGER 3 .... £8.99
G-LOC £6.99
HERO QUEST £4.99
I.S.S. £6.99
JET BIKE SIM 3.99
LOTUS ESPRIT £6.99
MAXAM II - ASSEMBLER, EDITOR + MONITOR 12.99
MERCS £7.99
MONTY PYTHON'S FLYING CIRCUS £4.99
MYTH £7.99
NEW YORK WARRIORS £2.99
NIGEL MANSELL £8.99
NINJA REMIX £6.99
PLAY + READ LEVEL 1 - AGE 4-9 YEARS £7.99
POP UP £6.99
PROBMX 3.99
ROCK STAR ATE MY HAMSTER 3.99
SAINT DRAGON £5.99
SCRABBLE DELUX PCW £6.99
SHADOW DANCER/ALIEN STORM £9.99
SHADOW OF THE BEAST £5.99
SIM CITY £9.99
SPACE CRUSADE £9.99
STEVE DAVIS SNOOKER PCW £5.99
SUPER CARS £6.99
SUPER OFF ROAD £3.99
SUPER SPACE INVADERS + PIT FIGHTER £9.99
SWITCHBLADE £5.99
TAS SIGN - SIGNMAKER 9.99
TETRIS £4.99
TURTLES £4.99
TURTLES COIN OP £5.99
WORLD CLASS RUGBY £7.99

SPECIAL OFFERS
DOUBLE PACK 1 .... £8.99
CISCO HEAT/POWER DRIFT
DOUBLE PACK 2 .... £10.99
LOTUS ESPRIT/SUPER CARS
DOUBLE PACK 3 .... £9.99
HERO QUEST/SWITCHBLADE

KID SPECIALS
SOOTY'S FUN WITH NUMBERS £8.99
THOMAS THE TANK ENGINE FUN WITH WORDS £8.99
BOTH AGE UP TO 7 YEARS .... £15.00 FOR TWO

CASSETTE COMPILATIONS

EDITION 1 .... £4.99
DOUBLE DRAGON/XENON/SILKWORM/GEMINI WING

THE BIZ £4.99
DOUBLE DRAGON/R TYPE/OPERATION WOLF/BATMAN

COIN OP HITS 2 .... £4.99
DYNASTY WARS/NINJA SPIRIT/VIGILANTE/GHOULS' N' GHOSTS/HAMMERFIST

KIDS PACK 1 .... £4.99
POSTMAN PAT/POPEYE 2/SOOTY + SWEEP/WOMBLES/SUPER TED/COUNT DUCKULA

KIDS PACK 2 .... £4.99
FIREMAN SAM/COUNT DUCKULA 2/POPEYE/POSTMAN PAT 2/HUXLEY PIG/BANGERS + MASH

COMBAT 3 .... £2.99
SPAGHETTI WESTERN/2088/NINJA COMMANDO/BIONIC NINJA

HANNA-BARBERA COLLECTION £4.99
TOP CAT IN BEVERLEY HILLS/YOGI'S GREAT ESCAPE/HONG KONG PHOOEY/RUFF AND REDDY IN THE SPACE ADVENTURE

TENGEN TRILOGY £3.99
CYBERBALL/KLAX/ESCAPE FROM THE PLANET OF THE ROBOT MONSTERS

SUPER SEGA £5.99
CRACKDOWN/SHINOBI/SUPER MONACO G.P./ESWAT/GOLDEN AXE

MAX COMPILATION £4.99
TURRICAN 2/ST DRAGON/SWIV/NIGHT SHIFT

THE COLLECTORS (FRENCH INSTRUCTIONS) £3.99
SHADOW OF THE BEAST/SUPER CARS/SWITCHBLADE/LOTUS ESPRIT/GHOULS 'N' GHOSTS

INTEGRAL (FRENCH INSTRUCTIONS) £3.99
LOTUS ESPRIT/SUPER SCRAMBLE/TOYOTA CELICA GT/SUPER CARS

11 GAMES + WORD PROCESSOR £4.99
HANGMAN/FRUIT MACHINE/BRIDGE IT/EASI AMSWORD/ROLAND ON THE ROPES/ANIMAL VEGETABLE, MINERAL/OH MUMMY/HARRIER ATTACK/THE GALACTIC PLAGUE/ROLAND IN THE CAVES/SULTAN'S MAZE/TIMEMAN ONE

MULTIMIX 5 .... £2.99
MONTY ON THE RUN/JACK THE NIPPER 2/AUF WIEDERSEHEN MONTY

SUPREME CHALLENGE £4.99
SENTINEL/STARGLIDER/ACE 2/ELITE/TETRIS

CHART ATTACK £5.99
SHADOW OF THE BEAST/SUPER CARS/LOTUS ESPRIT/IMPOSSOMOLE/GHOULS 'N' GHOSTS

DARK FORCE £2.99
MIDNIGHT RESISTANCE/NIGHTBREED

SPORTS + SKILLS 5 .... £2.99
WORLD SOCCER/FRUIT MACHINE/BATTLETANK/PARA ACADEMY

POPEYE COLLECTION £4.99
POPEYE 1, 2 & 3

POSTMAN PAT COLLECTION £4.99
POSTMAN PAT 1, 2 & 3

JOYSTICK THUNDER £2.99
ELIMINATOR/CYBERNOID 2/HYDROFOOL/LIGHTFORCE/EXELON

CHALLENGERS £4.99
SUPER SKI/FIGHTER BOMBER/PRO TENNIS TOUR/KICK OFF/STUNT CAR RACER

RED HOT HITS £4.99
GHOST BUSTERS/FA CUP/AGENT X 2/KANE/LA SWAT/ZOLYX/RASPUTIN/NINJA MASTER/OLLIE & LISSA/RICOCHET/WAY OF THE EXPLODING FIST/DAN DARE/TAU CETI/FORMULA 1 SIMULATOR/BRIAN SACKS CHALLENGE/I BALL/TRUST/PARK PATROL/WAR CARS/HARVEY HEAD BANGER/TARZAN/NINJA HAMPSTEAD/DRUID 2/THE BOGGIT/CATCH 23/MYSTERY OF THE NILE/MEGA APOCALYPSE/ENDURANCE/ACTIVATOR/DARK SCEPTRE

TOLKIEN TRILOGY £5.99
THE HOBBIT/LORD OF THE RINGS/SHADOWS OF MORDOR

SPORTS PACK 5 .... £2.99
WORLD SOCCER/FRUIT MACHINE/BATTLE TANK/PARA ACADEMY

GAME PACK 4 .... £2.99
SKATING USA/SNOWBALL IN HELL/GUNFIGHTER/PERISCOPE UP

MULTIMIX 3 .... £2.99
STREETFIGHTER/BIONIC COMMANDO/1943

QUATTRO RACERS £2.99
BMX/JET SKI/ATV/B

QUATTRO SPORTS £2.99
GRAND PRIX/PRO SKI/PRO SNOOKER/BMX

QUATTRO SUPER HITS £2.99
TANK/STUNTMAN/HERO/ITALIAN SUPER CAR

QUATTRO POWER £2.99
MOTO X/TURBO V8/POWERBOAT/ATV

ULTIMATE COLLECTION £5.00
SKATE WARS/STUNT CAR RACER/PRO TENNIS TOUR/ZOMBI/AFTER THE WAR/AMC

COMPUTER HITS 4 .... £4.99
PULSATOR/CITY SLICKER/REVOLUTION/STARQUAKE/DEACTIVATORS/ANTIRIAD/BRIDE OF FRANKENSTEIN/UCHIMATA/TRIAXOS/SPIN DIZZY/DANDY/ELECTRA GLADE

COMPUTER HITS 5 .... £4.99
WIZARDS LIAR/2112 AD/CONTRAPTION/KETTLE/ATTACK OF THE KILLER TOMATOES

SUPER STAR SEYMOUR £9.99
SERGEANT SEYMOUR ROBOT COP/WILD WEST SEYMOUR/SEYMOUR GOES TO HOLLYWOOD/STUNTMAN SEYMOUR/SEYMOUR SAVES THE PLANET

BIG BOX - 30 MEGA GAMES £9.99
GHOSTBUSTERS/ENDURO RACER/HACKER/BASEBALL/KNIGHTMARE/ALIENS/WONDERBOY/GFL FOOTBALL/SAILING/SUPER HANG ON/AIR RALLY/HIGH FRONTIER/BIG TROUBLE IN LITTLE CHINA/SPACE SHUTTLE/KARNOV/PLUS 15 MORE GAMES

GINORMOUS PACK £6.99
RED ARROWS/ARMY MOVES/GRID IRON 2/PRO MOUNTAIN BIKE SIMULATOR/BMX NINJA/RUGBY BOSS/EVERYONE'S A WALLY/SOCCER CHALLENGE/THE REAL STUNT EXPERTS/COMBAT ZONE/SOCCER BOSS/RUN FOR GOLD/DEAD OR ALIVE/TURBO BIKE/AUSTRALIAN RULES FOOTBALL/GUN BOAT/PUNCH + JUDY/GAME OVER/RALLY DRIVER/STRIKE FORCE COBRE

DISKS FOR PCW 8256

BETTER SPELLING ..... 9-14 .... £6.99
BIOLOGY 1 .... 12-16 .... £6.99
MAGIC MATHS .... 4-8 .... £5.99
MATHS MANIA .... 8-12 .... £6.99
CHEMISTRY 1 .... 12-16 .... £6.99
PHYSICS 1 .... 12-16 .... £6.99

GAMES SUBJECT TO AVAILABILITY. PLEASE NOTE - A PHONE CALL RESERVES YOUR ORDER. ORDERS UNDER £5.00 ADD 50p POSTAGE + PACKING. CHEQUES + POSTAL ORDERS MADE PAYABLE TO WIZARD GAMES. PLEASE ALLOW 7 DAYS FOR DELIVERY.

DIY shoot-'em-ups

If you can't beat 'em, write 'em. Knocking out games will soon be easier than ever thanks to the soon-to-be-released Zack. Simon Forrester checks out the work in progress.

"The most powerful utility ever to hit the CPC". So claim Quantum. But then they would. They're releasing the darned thing. But what 'thing' is it? What could possibly deserve such hyperbole? *Zack Construction Kit*, that's what, an arcade game creation package, a package which'll take the hard labour out of writing games.

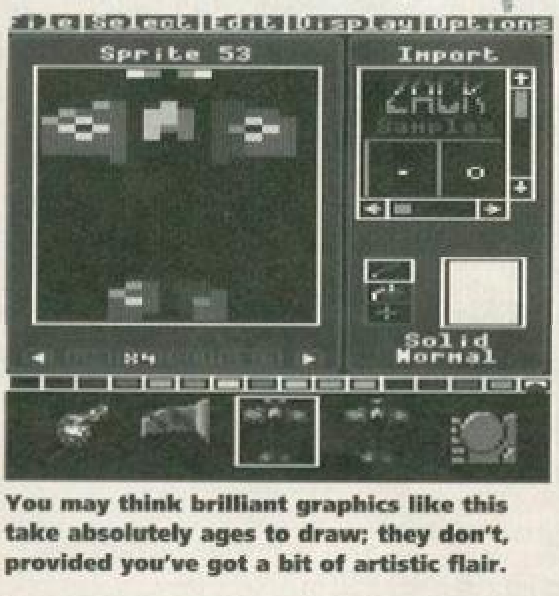
So far we've only seen an unfinished version of the package, but it's such an intriguing idea, we thought we'd bring you an in-progress report.

It's a game creator of two halves (and a couple more)

The main game creator is split into four parts:

● **The Graphics Editor** – Offering art features that rival packages like *OCP Art Studio*, Zack enables you to design sprites, background layouts, consoles ('console' being the package's buzz word for the panel where your score is displayed) and character sets (lettering, to you and me). It also has a facility which allows you to draw a sprite from various angles or in various states (ie, whole or half shot away) then group them as an object block; you can then define how the sprite should look at various points in the game.

This part of the package is both powerful and easy to use, but so far it looks as if provision has only been made for games running in mode 0, which, I feel, is a mistake. There will be the occasional game that would sit a lot more comfortably in a higher resolution mode, despite the more limited choice of colours – *Myth* thrived under these circumstances.



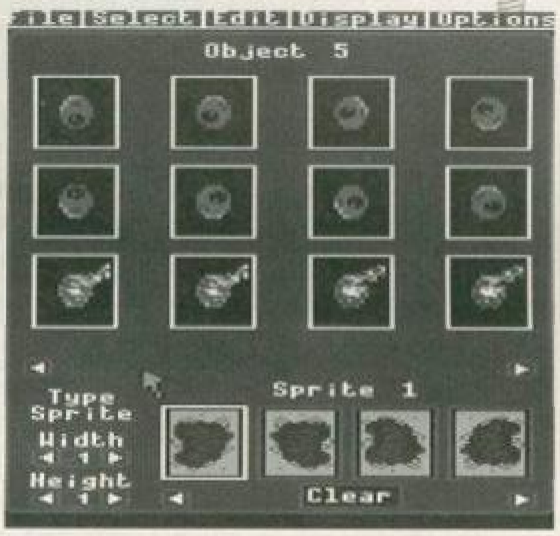
You may think brilliant graphics like this take absolutely ages to draw; they don't, provided you've got a bit of artistic flair.

So now we've got our game drawn (with an astounding leap of effort justified by artistic licence and a limited space on the page), what's next?

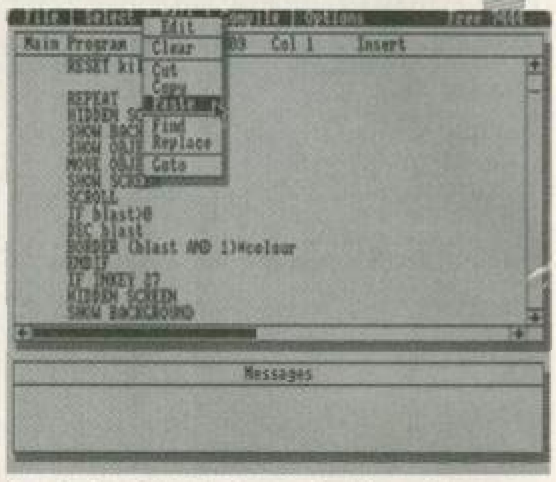
● **Music/FX Creator** – Erm... Yeah. A slight problem here is that I haven't actually, in the sense of sitting in front of a machine and using it, seen this part of the package yet. That's because it hasn't been written yet.

When someone does get around to writing it, though, the music/FX creator will be what you use to write your title tune and sound effects like explosions, bullets, death screams, killer cucumbers from the planet fish, etc. Pretty essential really, so let's hope the programmers make a good job of it.

● **Program Editor** – It's here that all the magic happens (*are you sure you haven't been watching too much Saturday morning TV? – Dave*). This is the bit where you write program that'll manipulate the sprites, tag all the bits of the background together and do all the 'stuff' that turns your work from a load of static pictures into a game. But don't panic – you don't have to learn a language anywhere near as complicated as Machine Code. The specially-written language is a straightforward affair. If memory serves me correctly (*which it never does when you owe me a tenner – Dave*), it's similar to COBOL, but it's structured more like Machine Code, with labels replacing line numbers and commands mainly dedicated to placing, moving and removing sprites as well as collision detection, sound and scrolling.



This bit's where you tag the sprites together to create frames of animation.



Here's the fab, funky text editor where you write such literary classics as, 'Game Over.'

The jury's still out

Now would normally be the point in the review where I give my verdict. Quantum Computing, and in particular Richard Wilson (who wrote the package) should be getting nervous at this bit, with beads of sweat trickling down their temples. Which makes it a perfect opportunity to mash their brains by being a real jobsworth and saying, "This is a preview, so I can't make any judgements."

But I'm not that cruel. Today.

Bear in mind this is a preview, though, and there will be a final review when the product's complete. But from the standard of what I've seen so far, it looks like this package is going to be really rather stunning. Both the graphics and program editors are driven with a pointer and menu system, similar to that used in *OCP Art Studio* which is designed for joystick or keyboard control.

All in all, if you want to write games, this looks like it could be the package for you. Vehement non-programmers, stay away, because it's not just a case of drawing pretty pictures; you do actually have to write a core game program, even though it's in a fairly easy-to-understand language.

To sum up, then, this looks like it could well be among the more powerful and well-written utilities on the CPC. Whether it's the all-time best is another matter, as that really is a pretty big claim to live up to. **Simon**

And here's one I made earlier

As an example of *ZACK*'s capabilities, Quantum sent us along a sample game produced using it. It has to be said that the game really is quite dire, but that shouldn't reflect on the abilities of the package; there's still a lot to add (an entire sound system, for a start). The point isn't the kind of game Quantum can produce with *ZACK*; it's the type of game *you* could, given the chance. And you will be, very soon.

Quantum can be contacted at: 10 Lakin Drive, Barry, Mid Glamorgan, South Wales CF6 5AJ. ☎ 0446 746920.



Here's a game they knocked together with the package – it's, erm, a bit nob really, but with a copy of ZACK you could easily do better (sorry, Quantum).

O.J. SOFTWARE

Access (0257) 421915 — (0257) 421915 VISA

Fast Friendly Service

ARCADE

	CASS	DISK
Addams Family (128K)		£14.95
Back to the Future II		£6.99
Bonanza Bros		£6.99
Captain Blood		£11.95
Cisco Heat	£2.99	£6.99
Dizzy Crystal Kingdom	£8.50	
Double Dragon III		£12.95
Edd the Duck	£3.75	£6.99
F16 Combat Pilot	£3.75	£7.95
Galactic Games		£6.99
Ghostbusters II		£6.99
G-Loc (128K)		£13.95
I. Jones Fate Atlantis	£9.95	£13.95
Incredible Shrinking Sphere		£6.99
Lemmings	£12.95	£15.95
Light Corridor		£6.99
Mystical		£6.99
Myth	£3.75	£6.99
New York Warriors		£2.99
Nigel Mansell W Champ	£9.50	£12.95
Nightbreed + Midnight Resistance		£9.99
North & South		£13.95
Outrun Europa		£13.95
Paperboy II	£9.50	£12.95
Pop Up		£6.99
Prehistorik II	£9.50	£12.95
Rodland	£3.75	£12.95
Shadow of the Beast		£6.99
Shadow Dancer + Alien Storm		£12.95
Sim City		£14.95
Street Fighter II		Phone
Strider II + UN Squadron		£9.99
Super Cauldron	£9.50	£12.95
Titus the Fox		£12.95
Total Recall	£3.75	£6.99

SPECIAL OFFER ON DISK ONLY
Monty Python + Monopoly + Wild Streets + Off Shore Warrior + Joystick Splitter for £9.99
AVAILABLE WHILE STOCKS LAST

COMPILATIONS

	CASS	DISK
2 HOT 2 HANDLE: Golden Axe, Sup. Off Rd, Tot. Recall, Shad. Warriors	£12.95	£15.95
HOLLYWOOD COLLECTION: Robocop, Ghostbusters II, Batman Movie, I. Jones Last Cru		£15.95
LOOPZ COLLECTION: Loopz, Emlyn Hughes, Arcade Quiz, Helter Skelter		£9.99
DREAM TEAM: Terminator II, Simpsons, WWF Wrestlemania		£15.95
MEGA SPORTS: 30+ Sporting Events		£15.95
MINDSTRETCHERS: Monopoly, Scrabble, Cluedo		£12.95
SUPERFIGHTER: Final Fight, WWF Wrestlemania., Pit-Fighter		£15.95
SOCCER STARS: Kick Off II, Gazza II, Emlyn Hughes, Microprose Soccer	£11.95	£15.95

STRATEGY/SIMULATION

	CASS	DISK
Cluedo		£6.99
Colossus 4.0 Bridge	£3.75	£7.95
Colossus 4.0 Chess	£3.75	£7.95
Football Manager III		£12.95
Man. Utd. Eur. + J Khan Squash		£12.95
Monopoly	£2.99	£2.99
Nigel Mansell W. Champ	£9.50	£12.95
Scrabble	£2.99	
Scrabble De Luxe 6128		£12.95
Sporting Triangles		£6.99
World Class Rugby		£12.95
F16 Combat Pilot	£3.75	£7.95

BUSINESS/UTILITIES

	CASS	DISK
Advanced Art Studio 6128		£19.95
Adv Art + AMX Mouse + M Mat		£54.95
Colour Dump 3 (Col Scr Dump)		£15.95
Crash Course Typing Tut 6128		£20.95
Discology (Disk Utility)		£12.95
Mastercalc 128 (128k)		£27.95
Masterfile III (128k)		£29.95
Microdesign + DTP for 6128/6128+		£29.99
Microdesign + with AMX Mouse +MM		£59.99
Mini Office II	£12.95	£16.95
Money Manager (+PCW)		£24.95
Proprint (Print Enhancer)		£15.99
Prospell		£20.95
Protext	£16.95	£21.95
Protype (Print Enhancer)		£23.95
Tasword 6128		£24.95
Tas-Spell (For Tasword)		£20.95

ACCESSORIES

AMX Mouse & Interface	£34.95
AMX Mouse + Adv Art + Mouse Mat	£54.95
Amstrad FD1 2nd Disk Drive	£59.95
Cassette Alignment Kit (inc. Game)	£7.95
Cassette Lead (with REM Conn)	£3.95
Cassette Rec + Leads (not 6128+)	£23.95
Cover Set (2 piece, state mach & mon)	£8.95
Disk Drive Cleaner 3"	£5.95
Genius Mouse & Adv Art	£49.95
Joystick Splitter	£2.99
Kboard Ext Leads 464 £8.95, 6128	£9.95
Kboard Ext Leads 464+/6128+	£9.95
Memory Expansion 64K for 464	£44.95
Printer Cable 1 Mtr £8.95, 2 Mtr	£10.95
Printer Cable 464+/6128+ 2Mtr	£7.95
Screen Filter Antistatic Mono/Col	£14.95

JOYSTICKS

COMPETITION PRO Mini	£14.95
CHEETAH Bug	£13.95
CHEETAH Mach 1	£11.95
KONIX Speedking	£11.95
KONIX Navigator	£13.95
POWERPLAY Terminator	£14.95
QUICKSHOT Python 1	£10.95
QUICKSHOT Python 1 Microswitch	£11.95
ZIPSTICK Super Pro	£14.95
464+/6128+/GX4000 Games Paddle	£8.95

EDUCATION

	CASS	DISK
Fun School I Under 5		£8.95
Fun School I 5-8		£8.95
Fun School I 8-12		£8.95
Fun School III or IV 5-	£10.95	£13.95
Fun School III or IV 5-7	£10.95	£13.95
Fun School III or IV 7-11	£10.95	£13.95
Playdays 3-8	£10.95	
Lets Play with Words 4-8	£12.95	£12.95
Fun with Words 7-	£8.50	£11.95
Read Right Away 1 5-8	£9.95	£12.95
Read Right Away 2 6-9	£9.95	£12.95
Read Right Away 3 7+	£9.95	£12.95
Better Spelling 9+	£8.95	£12.95
Lets Play Numbers 4-8	£12.95	£12.95
Lets Play Money 4-8	£12.95	£12.95
Primary Maths 3-12	£24.95	£24.95
Fun with Numbers 7-	£8.50	£11.95
Target Maths 6-13		£12.95
Micro Maths 11+	£24.95	£24.95
Better Maths 12-16	£8.95	£12.95
Mega Maths 15+	£24.95	£24.95
Biology 1 12-16	£8.95	£12.95
Chemistry 1 12-16	£8.95	£12.95
Physics 1 12-16	£8.95	£12.95
French Mistress 11+		£15.95
German Master 11+		£15.95
Spanish Tutor 11+		£15.95
Micro English 8-Ad	£24.95	£24.95
The Three Bears 5+ (6128)		£12.95
Five on Treasure Island	£9.50	£11.95
Granny's Garden 6-10 (6128)		£16.95
Dragon World 6-10 (6128)		£20.95
Giant Killer Maths Adv 9-14		£15.95
Answer Back Jnr Quiz 6-11		£11.95

FACTFILE SERIES FOR ANSWER BACK JNR QUIZ

Arithmetic 6-11	£7.95
Spelling 6-11	£7.95
World Geography 11+	£7.95
Natural History 10+	£7.95

PRINTERS

All printers listed below are suitable for use with AMSTRAD CPC, ATARI ST, COMMODORE AMIGA, IBM PC & COMPATIBLES

When ordering please state computer

CITIZEN 120D + 9 Pin Mono	£139.95
STAR LC20 9 Pin Mono	£149.95
STAR LC100 9 Pin Mono/Col	£189.95
STAR LC24-20 24 Pin Mono	£209.95
STAR LC24-100 24 Pin Mono	£219.95
STAR LC24-200 24 Pin Mono	£259.95
STAR LC24-200 24 Pin Mon/Col	£289.95

All prices include cable & delivery

PRINTER RIBBONS

Quantity:	1	2	5
DMP 2000/3000	£3.75	£7.00	£16.25
CITIZEN 120D	£3.75	£7.00	£16.25
PANASONIC KXP10/1180	£3.75	£7.00	£16.25
STAR LC10/20	£3.75	£7.00	£16.25
STAR LC24-10/20	£3.95	£7.50	£17.50
PANASONIC KXP1124	£3.75	£7.00	£16.25
STAR LC200 Mono	£4.95	£9.50	
STAR LC200 Colour	£11.95	£22.95	

Other printer ribbons please phone

RIBBON RE-INK £12.95

BUDGET CASSETTES £3.75 EACH

Chuckie Egg	Chuckie Egg II
Continental Circus	Dizzy Yolk Folk
Double Dragon II	Dragons of Flame
Emlyn Hughes Soccer	F15 Strike Eagle
F16 Combat Pilot	Flimbo's Quest
Golden Axe	Gunship
Hudson Hawk	Lotus Turbo
Pitfighter	Rick Dangerous II
Rodland	Silent Service
Streetfighter	Terminator II
Trivial Pursuits	Turbo Tortoise
Turrican II	WWF Wrestlemania

MANY MORE GAMES STOCKED. PLEASE WRITE OR TELEPHONE FOR LATEST PRICE LIST. PRICES INCLUDE POSTAGE & PACKING IN U.K. PLEASE MAKE CHEQUES & POSTAL ORDERS PAYABLE TO: O.J. SOFTWARE AND SEND TO: O.J. SOFTWARE, 273 MOSSY LEA ROAD, WRIGHTINGTON, NR. WIGAN, LANCS WN6 9RN (MOST ORDERS DESPATCHED BY RETURN). ACCESS & VISA ORDERS TEL/FAX ON 0257 421915
MON-FRI 9.00 - 17.30, SAT 9.00-12.30 (ANSWERPHONE/FAX OUTSIDE HOURS). OVERSEAS ORDERS WELCOME (SOFTWARE ADD £1 PER ITEM POSTAGE; PAYMENT BY CREDIT CARD, EUROCHEQUE OR BANK DRAFT)

3.5" Supa-Drive £69.95

- ★ 800K per Disc
- ★ Multi Compatible
- ★ Compact Size
- ★ TEAC 1.44Mb Mech
- ★ Side Switch
- ★ Dual Mode
- ★ External PSU reqd
- ★ Free Delivery

★★ Including FREE MS800 FREE File Transfer Disc ★★

ABBA Upgrade for CPC6126 Plus £25.00
Please phone for details

64K DKtronics £39.95 RAM Pack

OTHER PRODUCTS
User Manuals
System Discs
Drive Mechanisms
Head Cleaners
Service Manuals
Printer Cables
Widgets
Utilities

Write or Phone for our *FREE* Catalogue

Power Supplies
£9.95 Unregulated
£14.95 Regulated

Bonzo Super Medler	£13.95
Bonzo Blitz	£13.95
Bonzo Big Batch	£9.95
Bonzo Flash Pack	£9.95
Maxidos	£13.95
MS800	£9.95
ABBA Switch 6128	£12.95
3rd Drive Switch	£12.95

3.5" Discs (10)	£7.95
3" Discs (Amsoft)(10)	£19.95
Disc Box (Holds 40)	£7.95
Head Cleaner (3" or 3.5")	£4.95

Access VISA

6128 ROM £24.95
Includes Full Fitting Instructions

DDI-1 Disc Drive & Interface £149.95
(3" or 3.5" Drive)
FD1 Disc Drive £79.95

Microform
191 Watling Street Road, Fulwood, Preston PR2 4AE

Phone: 0772 701248 Fax: 0772 703131

VERYSOFT

Committed to the future of AMSTRAD computing

GRIPPER (128k + disk only)

The ultimate program editor.
Create your own personalised programs.

Features include:
Built in sprite editor.
Full search facilities incl. "Wildbyte".
Multiview utility; up to 4 disassembler listings on screen at once.
Full screen memory editor.
Full screen memory editor.
Load/save files including Multiface.
Fully menu driven.

[£14.50 + 75p p+p]

COMPARATOR (128k + DISK ONLY)

Automatic poke finder for use with a Multiface. Includes full memory editors + disassembler.

[£14.50 + 75p p+p]

PROGRAMMERS

If you have written any software that you believe is of commercial quality, be it a game or a serious program, then please send a copy to VERYSOFT at the address below. If we think it is of good enough quality, we can handle the marketing for you.
We pay 55% of total profits!

Make cheques/P.O.s payable to W.Davis
Send to: VERYSOFT, 450 Roughwood Road, Wingfield Estate
ROTHERHAM, South Yorkshire S61 4LA

CPC NOW!: 0353 663030

HARDWARE

464 Keyboard	£45.95
664 Keyboard	£59.95
6128 Keyboard	£call
464 Plus Keyboard	£58.95
6128 and colour monitor	£139.95
GX 4000	£26.95
MP1 modulator	£24.95
MP2	£29.95
2nd 3" Drive	£44.95
DD1 Disc drive	£69.95
5.25" Disc drive	£15.99
464 3.25" drive	£39.95
64k RAM pack	£29.95
Protek 1200 modem	£39.95

Accessories

10 Maxell 3" discs	£13.95
10 Sony 3.5" discs	£6.85
10 3.5" discs	£5.45
Printer Cable	£5.95
Ribbons	£call

Special Offer!

10 Maxell 3' discs	£13.95
Ginormous Pack	£5.50
Pro Tennis tour (cart) inc. box & instructions	£14.95
Smart Plus disc /tape	£13.99
Ball Bearing Tape	£3.49
Disc	£5.49

Cartridges

Klax	£13.95
Pro Tennis Tour	£14.95
Tennis Cup	£13.95

Plus many more carts available, ring for a list!

Just in:-
Several hundred copies of AA and other CPC magazines: 65p - £1.50

Do you have any hardware you want to sell? Well then give us a ring and we could be interested. If you don't see what you want on this ad then give us a ring as this is not all we stock!

Make Cheques/P.O.s payable to CPC NOW!
(All prices include postage and packaging)
and send to 3 Saint Ethelwolds Close, Ely, Cambridgeshire CB6 3AX
CPC NOW! (0353) 663030.

Assembly Line

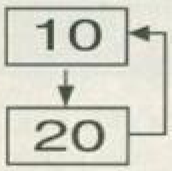
We all live in a yellow subroutine, a yellow subroutine, a yellow subroutine... You know, the further Simon gets through this beginners' programming series, the further away he gets from the subject of bouncing balls. Oh well...

Partly as a follow-up to last month's gentle introduction to Machine Code, but mainly because of the several hundred people who, after reading it, rang me up with hours' worth of questions, I'm going to continue my sojourn into Machine Code tutoring with another gentle introduction, this time an introduction to program structure.

Doing the splits

Let's start with the moron program that all the irritating kids type into the machines in WH Smith's on a bored Saturday afternoon:

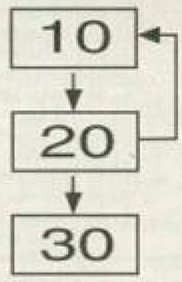
```
10 PRINT "Hello"
20 GOTO 10
```



As you can see from the flowchart representing this program, it is just a straight loop, with line 10 performing a function, and line 20 sending the program back to line 10. What about a more complex program? What happens when a flow path splits? Let's consider this BASIC program:

```
10 FOR a=1 TO 200
20 NEXT a
30 CLS
```

Though it has no real practical use whatsoever (a bit like Dave really), it'll actually wait for a while (not very long at all), then clear the screen. Its flow chart is a little less straightforward.



After line 10 has established a loop, line 20 either returns to line 10 (200 times) or lets the program run on to line 30.

But what with this being a Machine Code tutorial'n'all, I suppose having a look at the Machine Code equivalent would be a good idea, so here it is in all its glory:

```
        ld a,200
.loop   :dec a
        cp 0
        jp nz,loop
        ld a,&0c
        call &bb5a
        ret
```

And there you have it – the same function in Machine Code. The really interesting bit here is the point at which the program could split.

Time for one of those line-by-line breakdowns:

```
ld a,200
```

Here you're simply loading the a register with the number 200.

```
.loop :dec a
```

It's at this point that the program takes one away from the contents of that register.

```
cp 0
```

Now the program checks whether the content of the a register has reached zero – which will signify the loop has been passed through 200 times.

```
jp nz,loop
```

Here's the all-important bit – the reason this command reads the way it does as opposed to a simple **jp loop** is that it's conditional. As it stands the command will only jump back to the label stated if the result of the last operation was zero. The **nz** part is a flag, you see – set by the **cp** command. If the result of the **cp** (compare) command is not zero, the program jumps back to the loop. If it is, the command does absolutely nothing at all.

```
ld a,&0c
call &bb5a
ret
```

This bit does all the tidying up by clearing the screen and returning you to BASIC.

It's worth clearing up one other point – the **cp** command does not operate the way you might think it does if you've not experienced the command before. For instance, in the example above we compared a number with zero. What the **cp** command actually does is measure the difference between the number stated and the contents of the accumulator, the difference being expressed as either zero or non-zero (the **z** flag or the **nz** flag, the latter of which we have just seen in operation).

If only it were that simple

There's no harm in running through this one more time, just to make sure you've the hang of it. This time, though, let's deal with an **IF** statement, to expand our horizons a little:

```
IF a=10 THEN GOTO 100
```

And its Machine Code equivalent:

```
cp 10
jp z,label
```

Getting the hang of it now?



KERBLAM!

We thought we'd better let all those who've just joined us for the first time this issue in on a few vital bits of Assembly info:

- **ZAPP was an Assembler given away last issue.**
- **You'll need an Assembler to run Assembly programs like the Machine Code stuff printed in this section.**
- **If you're interested in all this coding stuff a good move would be to buy *AA* back issues from ish 91 onwards.**

And on a final note to all those of you who got hold of *ZAPP Assembler* and loved it to bits – please remember that when you see the line:

```
.loop··:ld a,7
```

...you should enter:

```
.loop:ld a,7
```

...and let ZAPP insert the spaces to make sure it all tabulates neatly.

Anyone flagging yet?

So far I've only dealt with one flag (well strictly speaking, two; `z` and `nz`). There are others, though, and you may have to use them in future. The other two really common states are `c` and `nc`, meaning carry and non-carry respectively. I can feel another IF statement coming on:

```
IF a>b THEN GOTO 100
```

A direct Machine Code translation would be:

```
sub b
jp nc,label
```

I suppose I ought to explain what the carry flag is all about, really, hadn't I? (*It's his organisation that I admire – Dave*). Well, it's quite simple really. As you should be aware (and if you aren't order some Back Issues from page 25, you cheapskate), a single 8-bit register can hold an integer (*whole numbers to you and me – Dave*) from 0 to 255. If you carry out an operation (like subtract, as we've just done) on a register and the value goes above 255 then the routine will start counting from zero again (ie, 253, 254, 255, 0, 1, 2, etc); if the value goes below zero the routine will count down from 255 (ie, 2, 1, 0, 255, 254, 253, etc). And Dave, stop interrupting my paragraphs.

Stop panicking – I'll elucidate. If you take the number 250 and add nine, the result will be 3, as the value goes to 255 then through zero, one, and two. If this ever happens, the carry flag is set. If it doesn't happen, the non-carry flag is set.

Flags and what to do with them

Okay, okay, I know this stuff's not all that clear to the absolute beginner, so let's go through this just one more time.

Because Machine Code isn't highly structured enough to support complex commands like BASIC's IF command, every command, such as subtraction, addition, comparison and the like leaves it's mark on flags.

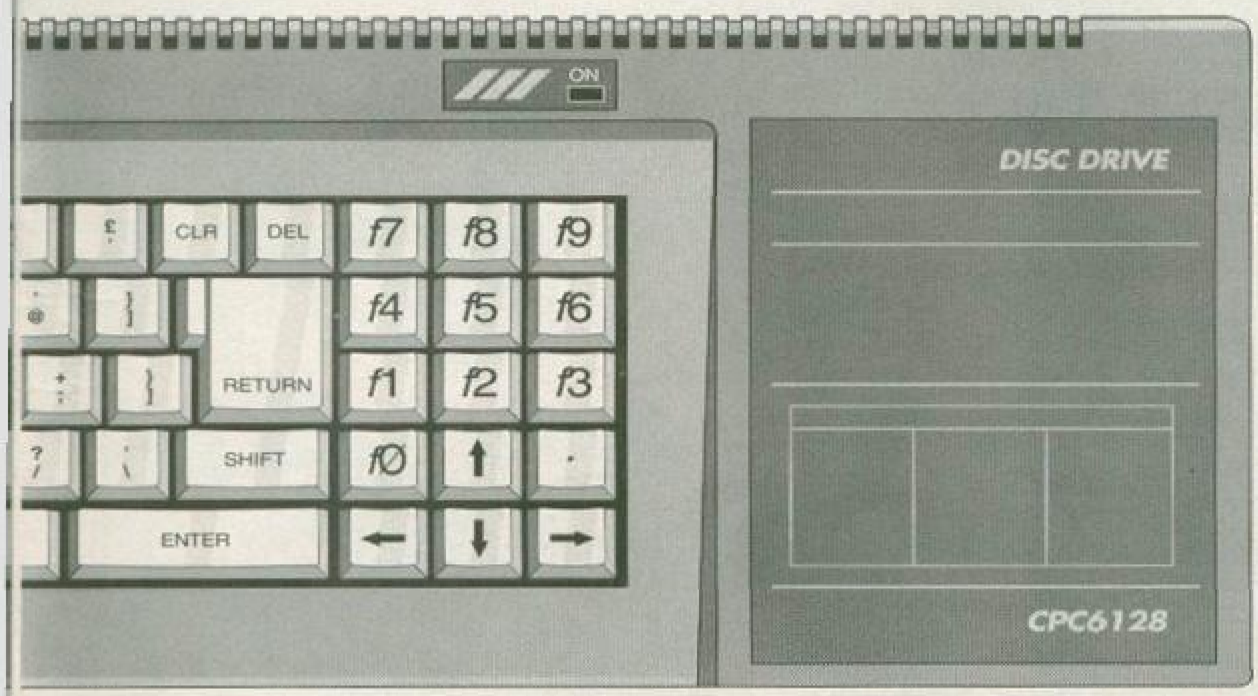
These flags are simply little indicators that either contain 1 or 0. So if you had a routine that contained an addition which made the result carry over the top of a number scale (255), the carry flag would be set (it would show a 1). If the result didn't carry, the flag would not be set.



Typical. This is what you get when you tell an art editor to use his imagination.

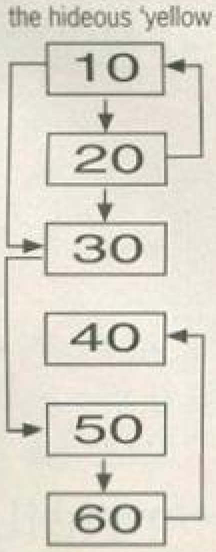
These flags can then be detected with commands such as `JP C`, which means 'if that last command did result in the carry flag being set, jump to the following address'. Dead simple!

One final thing – when you hear phrases like 'flow of operation', they're just referring to the way a program runs; the route it takes and where it goes. I just thought I'd mention that.



Sub-culture

Next up, subroutines (something had to justify the hideous 'yellow subroutine' gag earlier). Let's take a quick look at a BASIC program:




```
10 GOTO 30
20 END
30 GOSUB 50
40 END
50 CLS
60 RETURN
```

Okay, it's completely impractical, line 20 never gets used and you'd never need it, but how does it look theoretically? What would it look like in Machine Code, though?

```
        jp loop1
        ret
.loop1 :call loop2
        ret
.loop2 :ld a,&0c:call &bb5a
        ret
```

The only reason, incidentally, that the two instructions on `loop2` are piggy-backed on to the same line is that now you can see the BASIC and Machine Code programs match, line for line.

One other thing you'll be instantly aware of is that the `END` commands are replaced with `ret` commands. Why? Well, any Machine Code program you'd run would, in effect, be a subroutine, because it is `CALL`ed from BASIC. This means that the `ret` commands in lines 2 and 4 are simply returning control to BASIC, whilst the `ret` in the final line is passing control back to the command directly after the last call command. Understand it? Good.

Second-rate imitation

Incidentally, I think it's well worth mentioning that you really shouldn't write Machine Code that mimics BASIC programs. Not only does it limit the ability of your work, but it begs the question, why are you bothering to convert it into Machine Code in the first place? You see, it's all very well to program in Machine Code, but if there wasn't actually any point in the first place, why have you bothered?

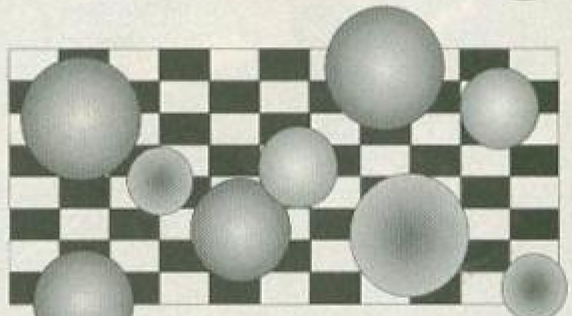
Go with the flow



So now you know how to make a program flow. In most respects, the structure is identical to BASIC, but a lot more broken down (it can often take more than one Machine Code command to simulate a BASIC command).

One the final point here, and it concerns you. Let's face it, I may as well give up with this bouncing ball game for the time being, and concentrate on what you want to know about. So if there's absolutely anything you'd like me to cover in future, send me your idea on the back of a postcard, and I'll see what I can do.

The only real restriction is my utter refusal to cover raster bars, because it just means we'll see about a thousand more irritating demos with rasters moving in the background – if anyone dares ask me how how to program them, they'll be cited as an accomplice when my court case comes up, the one concerning my butchering of the nearest living thing when I got the request. You have been warned. AA



Warning: if you want to ask Simon what's happened to the bouncey ball program, think first – do you want a visit from a six-foot, seething, hairy ball of anger?

COME AND HAVE A GO IF YOU THINK YOU'RE HARD ENOUGH

To the victor... £10,000



Remember this guy? Last year, Allan Brett became a celebrity overnight after he scooped the National Computer Games Championships. Not only that though – as well as the glory, he also walked off with £10,000 IN HARD CASH.

Using outrageous skill, the 18-year-old from Hull managed to be the best on Sega, Nintendo and Amiga machines.

THIS YEAR THE GAMES CHAMP COULD BE YOU!

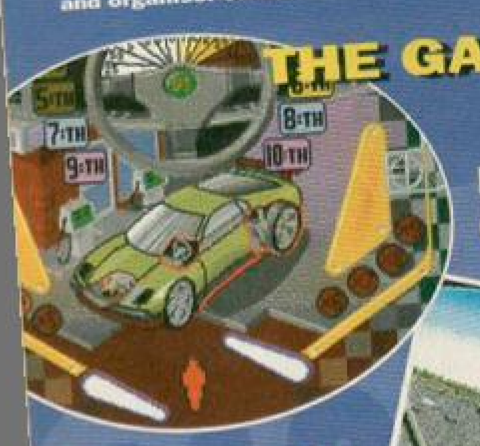
FREE ENTRY!

On this page you'll see the dates and venues for the first round eliminators. They're being held in Virgin Retail outlets in the major cities of Britain over the next few weeks.

All you have to do is turn up, and play. If you're good enough – and you'll have to be very good – you'll be into the next round. And after that... the finals at the Future Entertainment Show in London on 11 - 14 November.

The National Computer Games Championship is organised by Future Publishing, producer of this, and many other great games magazines, and organiser of the Future Entertainment Show.

THE GAMES YOU'LL BE PLAYING



Pinball Fantasies - CD32



Thunderhawk - MEGA CD



Mario All Stars - SNES

National COMPUTER GAMES CHAMPIONSHIP

THE DATES AND VENUES...

18 – 21 October — **Final on 22 October**

EAST KILBRIDE	Games Centre	GLASGOW 5 heats
FALKIRK	Games Centre	
EDINBURGH	Games Centre	
	Megastore	
GLASGOW	Megastore	

25 – 28 October — **Final on 29 October**

BOLTON	Games Centre	MANCHESTER 3 heats
STOCKPORT	Games Centre	
MANCHESTER	Megastore	
BIRMINGHAM	Megastore	BIRMINGHAM 2 heats
COVENTRY	Megastore	
BROMLEY	Games Centre	MARBLE ARCH 9 heats
CROYDON	Games Centre	
GUILDFORD	Games Centre	
ILFORD	Games Centre	
KINGSTON	Games Centre	
WATFORD	Games Centre	
MARBLE ARCH	Megastore	
MEGASTORE	Megastore	
BRISTOL	Games Centre	CARDIFF 2 heats
CARDIFF	Megastore	
DUBLIN	Games Centre	DUBLIN 2 heats
	Megastore	
BELFAST	Megastore	BELFAST 1 heat
GATESHEAD	Games Centre	NEWCASTLE 2 heats
NEWCASTLE	Megastore	
SHEFFIELD	Games Centre	SHEFFIELD 2 heats
	Megastore	
NORWICH	Megastore	NORWICH 1 heat

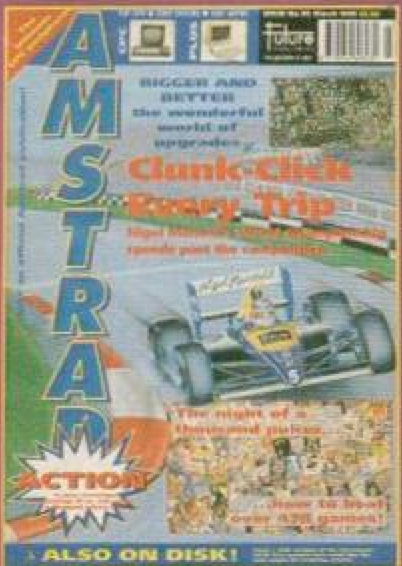
The second Future Entertainment Show

Virgin retail

Back issues

SOLD OUT! Issues 1-65, 67-74

Still available Issues 66, 75-95



Issue 90: The world's hugest collection of Multiface pokes (more than 478 of them). On the tape: *Steve Davis Snooker* (full game) and *LARA* (m/code utility).



Issue 91: All the dirt on who's doing what in the CPC world.HackIt black box of tricks reviewed. On the tape: *Tasword* (word processor) and *Colossus Chess 4*.



Issue 92: Just how do those floppy disc things work? Plus a review of the first 3.5 inch A: drive. On the tape: *BooTracker* (music utility), *SYNTAX* and *Balloon Buster*.



Issue 93: 101 interesting things to do with business software. Reviewed: *Super Cauldron*, Amstrad Pen Pad. On the tape: *Racing BoxForm, Mystical, Balrog*.



Issue 94: The very best software and kit for your CPC. *Prehistorik II* reviewed. On the jolly old tape: *Instant Recall* (database), *Contraption*



Issue 95: *Street Fighter 2* progress report. *Trakers* reviewed. A brief history of the computer game. And in loadable form on the tape: *MasterCalc* and *Biff*



Issue 96: The secrets of ROMs and carts revealed, and the start of our complete cart round-up. On the tape: *Screen Designer* (art package) and *Neil Android*.



Issue 97: Don't spend a fortune. Find out what are the best budget games and serious software. Plus: the excellent *Zapp Assembler* adorns the covertape.

Amstrad Action Back Issues

Name ______________________

Address ______________________

____

____

Post code __________ **Phone No** __________

Method of payment (please tick)

Access ❑ **Visa** ❑ **Cheque** ❑ **PO** ❑

Credit Card No [ ]

Expiry date [ ]

I would like the following back issues...

____

UK price – original cover price ● Europe £5 ● Rest of the world £7 ● Post and packing is £1 per order (regardless of size).

Please make all cheques payable in pounds sterling to Future Publishing Limited, and send the whole lot off to AA Bargain Basement, Future Publishing, FREEPOST, Somerton, Somerset TA11 7BR.

Technical Forum

If a little knowledge is a dangerous thing, then Richard Fairhurst is the intellectual equivalent of a 50 megaton nuclear warhead. And his vast mental powers are at your disposal every month in AA as he strives to answer your technical queries. You lucky people.

Fax a lot

I hope you can help me. I would like to be able to send and receive faxes from my CPC 6128, as well as electronic mail. Could you advise me how this might be achieved?
Peter Howells, Oxfordshire.

Receiving faxes is tricky. You can buy dedicated fax-modems, but there isn't any software available for the Amstrad that will pick up the image received from one. Fax-modems are only really a viable proposition on 16-bit and 32-bit machines.

For electronic mail, you'll need a serial interface (try Siren Software) and a modem, which you can pick up for about £120 from hardware advertisers in the computer press. To connect a modem, you need to have a new-style BT socket rather than an old hard-wired phone. Finally, you'll need to find a bulletin board or other service to send and receive your electronic mail from: ask the people who you're planning to contact which systems they use.

Some high-brow electronic mail services also offer facilities which will convert a message into a fax and send it, so this will solve half of your fax problem **Richard**

This is a dead CPC

For Christmas I got a Star LC-200 colour printer. It worked for a while, until I plugged the interface into the computer while they were both on. Now whenever I try to print the screen scrolls up the monitor as if someone has changed the vertical hold and a load of garbage appears on the screen. None of the keys work. Is it my printer that needs mending, or my 6128, and how much will it cost to repair? Please help me.
Chris Tyson, Cumbria



You think you've got printer problems... Check out what AA gets printed on.

Never connect or disconnect anything to a computer while it's switched on: as you've found out, it can cause serious damage. It sounds like you've damaged one of the chips inside your CPC, and since they're soldered in, it's not an easy job to replace them. Try a repair company like ERC (0733 371279), STS (0446 746920) or your local computer repair shop if they know about CPCs. By the way, if there are any other repair companies out there who know their way around a CPC, write to Techy Forum and tell us.

PBM poser

1 I intend to buy myself a printer for my 464 as I want to start up my own play-by-mail game, but I am having trouble deciding which printer to buy. I'm on a budget, I'm broke and I've got no money. It doesn't matter how fast the printer is and it also doesn't matter if it can't handle graphics or colour. What should I buy?
2 A while back I was going to buy an Amiga, so I sent away for Commodore's free catalogue. Inside was an ad for a Commodore MPS 1270 inkjet printer. This cost £179.99. Will this work on my 464? Will I need a special lead made up? Which is the better printer to get hold of – dot-matrix, inkjet or bubblejet?
3 I'll he using my faithful CPC to help me with my PBM game. Are there any programs on the market, besides

Top Tips

Lead of the month

At *Amstrad Action* we have to deal with more leads than Inspector Morse, or even Battersea Dogs Home. This month's connector is for Plus owners, so that they can connect their machine (with those awkward Amphenol connectors) to standard CPC peripherals.

As per usual, Maplin is the probably best place from which to buy parts. You can buy a copy of their catalogue from any branch of WH Smiths, or there may even be a Maplin shop near you. This is especially useful, because one of the relevant parts has actually been discontinued, but you should be able to pick it up in the bargain bins you'll find in every Maplin store.

Right, let's get down to business. First off, you'll need a length of 50-way ribbon cable. You also need a 50-way IDC card edge connector, to attach your peripherals to and a 50-way male Centronics plug, which goes into the Plus socket. Finally, you need a 50-way Reversiboard, which is the tricky part to get hold of. But providing you can find one the rest is no problem.

Simply take the ribbon cable, and clip the edge connector on to one end and the Centronics plug on to the other. Now insert the Reversiboard into the 50-way IDC card edge connector, and hey presto – one CPC to Plus conversion cable and a massive saving over the £10 you could expect to pay commercially.

Mr Memory

I'm always receiving letters from people who want to know how to expand their CPCs past the standard 128K. The usual trick is to use dkTronics memory expansions, but there are a few things worth noting about these.

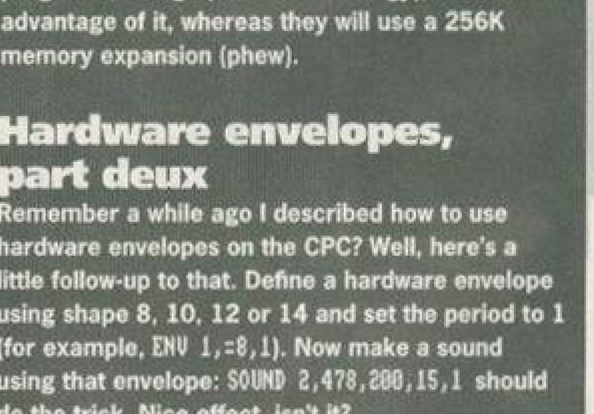
First of all, a 64K expansion will only expand a 464 or 664 up to 128K. You can't use more than one at once and you can't use them on a 6128. A 256K memory expansion will add 256K to a 464 or 664, including the 64K provided by the 64K expansion, so you only need one or the other; having both won't do you any good.

For the 6128, a 256K memory expansion will usually only give you 192K extra, as you already have 64K of it inside your computer. However, there have been two models of the 256K expansion and one of them will give you a full extra 256K. Check before buying.

Finally, a 256K silicon disk will expand any CPC by a full 256K and can be combined with a 256K memory expansion to give you 512K (if you have a 6128, it will be 448K extra, no matter which model of memory expansion you have). Some programs, though (such as *Discology*), won't take advantage of it, whereas they will use a 256K memory expansion (phew).

Hardware envelopes, part deux

Remember a while ago I described how to use hardware envelopes on the CPC? Well, here's a little follow-up to that. Define a hardware envelope using shape 8, 10, 12 or 14 and set the period to 1 (for example, `ENV 1,=8,1`). Now make a sound using that envelope: `SOUND 2,478,200,15,1` should do the trick. Nice effect, isn't it?



TIP OF THE MONTH: Don't Shave My Locks, Daddio in the 4:15 at Chepstow at the November meeting. Trained by A Ounsted and ridden by S Forrester, place a bet that the horse expires before the race is over.

$64,000 questions

I have written a quiz program in BASIC 1.1, with the questions separated into blocks and categories rather like *Trivial Pursuit*. Unfortunately, I have stumbled upon two major problems with which I would be grateful for your help.

1 The questions and answers are CHAIN MERGEd into the main program in the form of lines of data, each line comprising one question and the answer. Because there are different categories, I need to be able to read only the lines of data from the required category. I have tried inserting a routine between each category to do this, with the variables after the READ command different in each instance, but it still reads the first line of data in the whole program onwards. Would it be possible to load the categories into different parts of the memory and call them back when they are needed?

2 I need to be able to read a line of data at random from 26 lines of data and ensure that any line is only read once. How can this be done?

3 I know how to alter the right-hand margin of the screen from BASIC using the command OUT &BD00,30 (or whatever), but how do you alter the left-hand, top and bottom margins?
Adrian Bosworth, Devizes.



Smarm, smarm, sincerity, mm-mmm, oh so smarm...

1 No need. Instead, you can use the BASIC command RESTORE. When followed with a line number (eg, RESTORE 630), this will set the next READ command to read data from that line and so on after that.

2 The best way would be to read all the data into an array, and take random strings from this array, wiping out the strings after use so they can't be read again. This means that when you take a string at random, you must make sure that it isn't blank (and try again if it is). Here's an example routine to read in the array:

```
100 DIM a$(26)
110 FOR n=1 TO 26: READ a$(n): NEXT
120 DATA (put the strings here)
```

You can then pick out strings (into the variable n$) as follows:

```
200 a=INT(RND*26)+1
210 IF a$(a)= THEN 200
220 n$=a$(a): a$(a)=
```

3 In fact, the way you're doing the right-hand margin is a bit of a short-cut. The way you're supposed to alter these margins is by selecting the appropriate CRTC register with the command OUT &BC00,r where r is the register number and then setting its value with OUT &BD00,n where n is the value to set it to.

Register 1, usually 40, controls the width of the screen. Register 6, usually 25, sets the number of rows. Register 2, which is normally 46, selects how far to the left it is and register 7 (default 35) how far up. Play about with altering the values by one or two to see how it works. **Richard**

databases, which could help me out? Would a reader be willing to help me out with some nifty routines for working out the winner of a battle (write for details)?

4 How come some games (eg, *Street Fighter*) run slowly, while others like *Defenders of the Earth* run too fast?

5 Why has my 464 got yukky black and white keys while my friend's CPC has got red, blue and green keys?

6 Is there a left-handed Konix Speedking?

Tell Simon his Assembly Line is dead good and could you also ask him if he has the guitar tabs for Metallica's *Sad But True*. I'd like anyone who's interested in a *Dungeons and Dragons*-type PBM game to write to me so I can guess how many players I might have and send them some details.

Oh yeah, before I forget. Bring back Rod and his living beard. We miss him round here.
Brendan O'Connor, 4 Mullagh Place, Limavady, County Derry.

1 Any printer with a Centronics (parallel) interface – this means most of them – will work with a CPC. Good cheap-ish brand new ones include Citizen's Swift 9 and Star's LC range. Alternatively, have a look through your local paper's classified ads and the *AA* small ads (starting on page 35) for any second-hand models going cheap. Before you buy one, though, extract a promise from the vendor that it does have a Centronics interface and that the print-head is undamaged.

2 The Amiga has a parallel interface like the CPC so the MPS 1270 should work with your machine. However, Commodore have been known to mess around with weirdo connections (as on the C64, for example), so phone up and check before you buy. A standard lead connects the CPC to almost any printer (the Amstrad PL-1, or compatible); you can buy it from most CPC suppliers, such as OJ Software or Dartsma, or if you buy a printer via the *AA* Small Ads you might get one thrown in.

Dot-matrix printers are cheap both to buy and run, but the output, although perfectly legible, isn't the best (newer printers, though, like the Citizen Swift and Star LCs, boast very impressive letter quality modes). If you're prepared to put up with draft-quality printing, they can be very quick indeed, ideal for churning out multiple PBM info sheets. Bubblejet and inkjet printers are basically the same thing; bubblejet is a Canon trademark, while other makers use the term inkjet. Bubblejets give a higher quality output, but are more expensive to buy. If you can afford it, look out for a Canon BJ10ex, which is a truly superb printer and Epson-compatible too.

3 A spreadsheet might come in useful for battle-type calculations. One of the best spreadsheets for the CPC is Paul Dwerryhouse's superb *PD Planner*, which you should be able to get hold of from any PD library (WACCI was the first library to stock it). Oh, and feel free to write to Techy Forum for help with your routines. It's what we're here for.

4 Some things that certain games do, such as printing large sprites like the ones in *Street Fighter*, have the effect of slowing the computer down quite a bit. Inefficient programming could also be a cause.

5 Amstrad changed the 464 colour scheme, presumably thinking blue, green and red was a bit garish (*they were right – Dave*). They also replaced the original wonderful clunky keyboard with a Spectrum Plus 2-style lightweight model, for some strange reason.

6 Yes. Or rather, there used to be: phone around a few suppliers for availability.

As for Rod's legendary living beard, it is, in fact, still alive and well and working for *AA*. For everyone who wondered where Simon's wig came from, worry no more. And Simon also tells me that he managed to work to work out the tabs for the Metallica song in about three seconds flat, so you can work them out for yourself. Charming, isn't he? **Richard**

Countdown

I am currently writing an adventure game for the CPC. Part of the program is in Machine Code and part of it is in BASIC. Although I am a hardened BASIC programmer, I am a freshman when it comes to Machine Code.

The routine for prompting the player to type in a command is the BASIC INPUT command. However, here are my problems.

1 How do you program a Machine Code routine to continue to decrease a timer when the INPUT command is waiting to be answered? The timer I require is this: starting at 59 minutes 59 seconds (printed on the screen) decreasing to 0 minutes 0 seconds.

2 Once this is up and running, how can you detect, in BASIC, that the timer has reached 0?

3 If the game has a Save Position option, can you save the value of the timer and reload it to that value? I would guess that the value of the timer would have to be transferred from the BASIC program into the Machine Code program, but how is such a skilled feat of programming accomplished?



Countdown, with no Richard Whitley in sight, thank God.

4 Is it possible to get my hands on another copy of the covertape which contained the *Devpac* Assembler? I lost mine!
Graeme Brown, Midlothian

1 You'll need two variables in your Machine Code program: one for the number of minutes to go, and one for the number of seconds to go. First, write a routine which takes one from the seconds variable, and if it goes below 0 (in which case it will become 255), set it to 59 and take one from the minutes variable. Test this routine by CALLing it a few times from BASIC, and printing out each variable using BASIC (with a PEEK command to the appropriate addresses).

That's the first bit. Now add an extra variable; call it ticks. This starts at 50, and is decreased by one on every CALL; when it gets to 0, it's set to 50 again and will only then let your seconds count routine be called (which, of course, also changes the minutes count). This means that you should have to CALL this last routine 50 times to decrement it by one second.

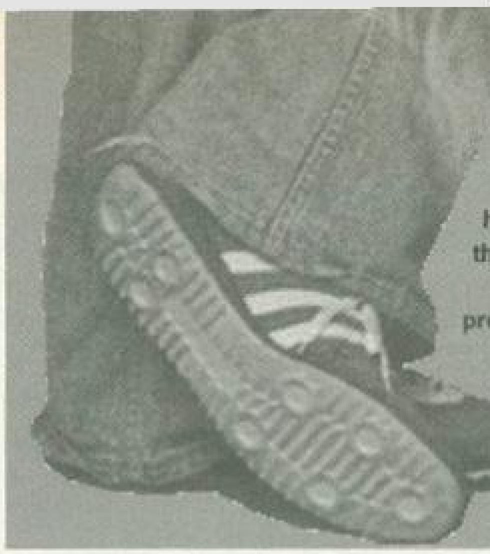
By setting up what's known as a frame flyback interrupt, you can get it to CALL the routine 50 times a second. This is done by loading HL with the address of 10 blank bytes (for the CPC to use as workspace), DE with the address of the routine you've just written and BC with `&8100`. Then when you `CALL &BCD7` the routine will start doing its stuff (to turn it off, load HL with the address of the 10 blank bytes and `CALL &BCDD`).

Finally, you'll want to print the values on screen. Write a routine that prints the contents of the minutes and seconds variables and CALL this every time you change the seconds count. If you run this, though, you'll notice that it messes up the position where text is printed on screen. There's a clever way around this: at the start of your BASIC program, define a window (say, #7) for the timer to go in. Put `LD BC,7: CALL &BBB7` at the beginning and end of your printing subroutine; this swaps windows 0 and 7 around, and the timer will appear in that window.

2 The easiest way is to PEEK out the minute and second variables from the appropriate addresses and see if they're both zero. You'll need to put a feature in your Machine Code routine that stops the clock when both variables and seconds are zero, otherwise it'll keep on going.

3 To save it, just PEEK the two values and save them out from BASIC in an OPENOUT file when you reload, POKE the values back again.

4 *Devpac* was on the *AA*71 covertape which, unfortunately, has sold out. Your best bet is to put an ad in the Wanted section of Small Ads and see if anyone will sell you a copy! **Richard**



Distress flares

There is always hope. Well, almost always – 70s fashions were the nearest civilisation has ever come to complete hopelessness. But we managed to survive that nightmare so the human spirit can triumph over any adversity.

Technical Forum is here here to help you so if you have a problem don't suffer in silence. By going public with your particular problem not only can we help you but you could be helping out other people in similar straits. Coming clean is simple. Just write to:

Technical Forum, Amstrad Action,
30 Monmouth Street, Bath, Avon, BA1 2BW.

You know it makes sense (well, probably).

Green issues

1 Do all 464s come up with a `Bdos Err On A: R/O` message on the first attempt at using the ERA function in CP/M?
2 Has anyone ever had any luck getting the macro function of the SG10 to work as described in the manual?
3 I'm trying to computerise a club badge to print out on letterheads, posters, etc. Is there an art package anywhere which will print characters in a circle like the inscription on a coin? I can do it in *Logo* but cannot feed the result back into an art package to complete the rest of the design. If the whole thing is done in *Logo*, how do you get a hard copy out?
4 Is there a user group in the Derby area?
5 If anyone is still having trouble with sliced-up graphics on *Mini Office 2*, it may help to know that running the SG10 in IBM mode cured the problem for me.
GT Burton, Derby.

1 CP/M 2.2 has more than a few quirks, the main one being the necessity to log in disks that are inserted into the A-drive. This means that, whenever you insert a new disk into drive A: you should always press CTRL-C to tell it that a new disk has been inserted (it won't let you do this with data format disks in drive A: which is a good reason for buying a second drive). Do this and such messages should disappear.

2 Anyone out there use an SG10?

3 Tricky. No CPC art or DTP package available at present offers such comprehensive text manipulation facilities, unfortunately, although you could try the very time-consuming technique of drawing a circle and then individually placing each letter on it. Your best bet is to beg, steal or borrow a Multiface 2. You can then draw the screen in *Logo*, save it using the Multiface, convert it to a normal screen (easy to do) and then load it into your art package.

4 We don't know of one, but if anyone is involved in any local user group that supports the CPC, write in to Amscene Directory (see page 7).

5 Thanks for the tip. The trick in these problems is to make sure that sending character 13 to the printer (eg, by `PRINT #8,CHR$(13);`) causes a carriage return only and that sending character 10 causes a line feed only (if you test it from BASIC, make sure you put a semi-colon at the end of the PRINT statement). Almost all these problems are caused by printers interpreting one of these characters as meaning both actions together. Your printer manual should tell you how to set DIP switches to achieve this configuration (get that screwdriver out). **Richard**

Board of Versailles

I'm happy to subscribe to *Amstrad Action* because there are now fewer French publications about the CPC and you get tapes with *AA (which are going to get better and better from now on by the way – Dave).*
1 Do you know the specifications to read/write 800K disks (MS800 and ROMDOS) with 22DISK on a PC? I tried with the information given by DPB.COM, but files were truncated.
2 I have a CPC664. When I start the computer, I often have drive errors (Drive not ready), especially with Maxell disks, less often with Amsoft disks. But after a while, there are fewer errors. What is the problem?
3 I want to create a Fido BBS with CPC software to download. I need addresses of PD libraries which accept Visa, as I can't send an SAE from France. Do you know about any CPC BBSs in England or Germany?
Emmanuel Roussin, Versailles, France

1 Run FORMATS.BIN, the formatting utility which comes with ROMDOS. This displays DPB information for each format with which ROMDOS can cope, which you should be able to enter in one form or another into 22DISK. Check that 22DISK can cope with double-sided disks; this is pretty much imperative for ROMDOS, unless you're using D80 format. For MS800, Avatar should be able to offer advice, as they supply both MS800 itself and 22DISK.

2 This seems to be a fairly common problem with these drives: quite a few readers have written in with reports of this happening and I've seen it occur on a PCW. If you feel confident about opening up your disk drive, check that the drive belt isn't slipping and that it hasn't deteriorated with age: this could be the problem.

3 No PD libraries accept credit cards, as (on the CPC) PD libraries are only small, part-time bedroom operations run by enthusiasts, rather than large companies. However, I'm sure that most libraries will be happy to send overseas customers their catalogue without an SAE, and will accept an international money order for a pound or so extra to cover the postage to France (you could also try bribing them with a bit of French PD).

A good bulletin board to try is Aspects, (☎ 061 792 0260); if you're calling from France, miss off the first zero. This is a Fido co-ordinating centre and, as well as carrying Amstrad and CP/M echomail areas, it also has a wide selection of CP/M and AMSDOS software to download. **Richard**



Things were going smoothly at the Treaty talks in Versailles until the day the Kaiser turned up in drag.

AA SMALL ADS

For Sale

Thirty Amstrad Actions with 30 covertapes. Issues 67 to 96 £30. Phone 0634 240867 after 4.30pm.

Amstrad CPC464 cassette games from £2. Large selection. List available. Turbo Outrun, Stargllder, Star Wars, Top Gun, RoboCop, Aliens, Super Off-Road, Big 4 Vol 2, Hit Pack, 1943, The Biz, Arcadia, Overlander, The Animator, After Burner 720. 0582 581259.

Super Nintendo PAL. Mint condition. One controller. All boxed with instructions including Lemmings, Street Fighter 2. Phone Luke now on 0306 881471. £120. Surrey area. Postage and packing not paid for.

Amstrad CPC6128. Colour. Excellent condition. Operating manual. Mini Office 2, Lords of Midnight, Elite, Lurking Horror. Annals of Rome and much, much more. £200. David 071 254 4916.

256K silicon disk (464 case) £61 with manual. AMX mouse with AMX Art on disk with manual £26. Laser Basic on disk with manual £12. Phone Colin 0784 252523.

Amstrad CPC464 colour TV/monitor clock radio, keyboard, dot-matrix printer and trolley £500. 50 games with many practical (DTP, databases) programs £40 or £50 with Mini Office 2. Phone 0202 737993.

Amstrad CPC464, colour monitor, some games, joystick £110. Buyer collects. Phone 0983 616362 weekdays 8pm to 9pm.

Amstrad CPC6128 computer and colour monitor. Little used. Complete with systems disks, dust covers, printer lead and manual. £125. Staffs 0889 500654.

Amstrad CPC464 with colour monitor and DDI-1 3-inch disk drive with Interface £250ono. Phone 0698 825045.

CPC6128, colour monitor, external tape and leads. Tons of software, tape and disk, joystick, AAs, manual and programming books. Al for £250 plus P&P. Phone 0387 720657 from 4pm-6pm.

Multiface 2 for CPC. Also CPC manual, Cheetah Bug, Amstrad Action mags, tape and disk games. £35 or will split. Phone 0494 564466 after 6pm.

CPC664, keyboard, £30. CPC464, green screen monitor only £30. MPI modulator £20. Will exchange CPC items W.H.Y. Tony Gibbons. Phone 0923 778918.

Amstrad 464 Plus with colour monitor, disk drive, multiface, £300 of games, AA magazines and all manuals. Excellent condition. Worth over £900 new. Will sell for £350ono. Contact William on 0565 651987 (Cheshire).

Sega Master System with four games – Sonic, Mickey Mouse 2, Prince of Persia and Double Dragon. Almost new. Boxed Instructions etc. £75. BARGAIN!!! Tel Jim on 0962 734072.

Amstrad CPC6128 colour monitor includes Protext word processor plus printer, cable and all manuals. £100. Stop Press DTP £30. Mini Office 2 £10. Also many games for sale. Phone 081 647 2797.

Gameboy Game. Unwanted present. Still boxed with full guarantee and instructions. Princess Blobbette. Cost approx £18. Will accept £8. Contact C Smith, Peterborough 0733 340397.

Amstrad 464. Colour monitor, keyboard, tape, 2 joysticks, games like Lemmings, Rainbow Island, Dizzy, Excellent Adventures, price £175. Chris 0664 812536 after 5pm till 9pm. 200 games.

Twenty-five Amstrad cassette games including some compilations. £20 ono. Tel 0536 760745.

Amstrad magazines: AA 1-60, Amtix (all issues), ACU 1-45. Most bound. Sell as complete sets. Early issues of CWTA and ACE. Offers? SSAE to Julian Cater, 29 St Leonard's Road, London SW14 7LY.

Amstrad CPC6128, colour monitor, approx 40 disks including Mini Office, Fun School, Footie games, tapes and tape recorder. £180. Tel Simon 081 954 5935.

Amstrad 6128, monitor, cassette lead, disks include WWF, cassettes include Rick Dangerous 2, Bloodwych. Quick sale, only £220ono, phone 0706 213841 after 5.30pm. Ask for David. Also AA back issues.

165 tape games on 130 tapes for Amstrad. £150 plus postage. 78 tape games on 10 compilations £40 plus postage. Mini Office 2 on disk £5 plus postage. Telephone Darren on 0302 864730.

Bargain! CPC464, RAM expansion, 75 plus boxed games, all originals. Only £75. Phone 0582 (Luton) 28565 after 4.30pm Tuesday to Friday. Buyer must collect.

Amstrad RS232 serial interface £35. Light Gun and ten games £25. 30 3-inch disks £30. Maxam plus four socket ROM board £30. All plus P&P. Tel Darren 0302 864730.

60 CPC tape games for sale. All originals. Also 3 disk-based. SAE for list to Angela Allum, 22 Point Royal, Bracknell RG12 7HH.

Star LC24-10 printer £125. ROMbox, Maxam, Protext, Utopia, £15 each, £50 the lot. RAMDOS (ROM) £10. All plus P&P. Tel Darren 0302 864730.

5.25-inch disk drive £25. 100 5.25-inch disks plus two boxes £25. 40 Amstrad Action mags £50. All plus P&P. Tel Darren 0302 864730. Mini Office 2 Disk £5.

Multiface 2 and Insider £30 the pair. AMX mouse plus Art Package and Stop Press £50. Eight-bit printer port £10. ABBA drive switch £7. All plus P&P. Tel Darren 0302 864730.

DMP 2000 printer £60. DDI-1 disk drive £60. Dart Electronics Light Pen £20. dkTronics 64K RAM expansion £30. Many games including Infocom adventures. For details SSAE to Julian Cater, 29 St Leonard's Road, London SW14 7LY.

Two Amstrad CPC464 computers. One colour, one mono monitor. Disk player, disk games, DMP2000 printer, joystick and all manuals £125. No offers. Telephone Mr Nunn 0293 782929 (Horley).

Amstrad CPC464 Plus, colour monitor with manual, joypad, 1 cartridge, some AAs and over £70 worth of software. Excellent condition £130. Phone Paul on 0778 343904 before 5pm weekdays or weekends.

CPC6128, colour monitor, manuals, tool kit, graphics, printer, joystick, loads of software, games and serious, Amsword, Masterfile, etc. £220ono. Tel 0204 843774.

Amstrad games for sale (tape only). All between £2 and 50p. Also AA mags with tapes. Send SAE for list to Andrew Blackmore, 35 Onslow Road, Reverell, Plymouth, Devon PL2 3QG.

CPC6128 for sale. Colour and green monitors, MP3 tuner. Cassette recorder. All manuals and system disks, magazines, etc. £250ono after 6pm. 081 625 2227.

CPC464, green screen monitor, over £400 worth of software, joystick, loads of Amstrad Action mags. £130ono. Call after 6pm. Ask for Pete. 0642 597695.

Amstrad CPC6128, disk drive, colour monitor, DMP2000 printer, TASword, money manager, approx 30 games. All in good condition. £260. Telephone 0256 26601 after 6pm weekdays.

Amstrad CPC6128 monochrome. 45 games, second drive (3.5-inch), MP2 modulator for use with colour TV, joystick, 20 Amstrad magazines, TASword 6128 word processor. £220 or make me an offer. Tel Cardiff 0222 580221 ext 345, office hours. Robin.

CPC6128 mono monitor, additional 3.5-inch disk drive, ROMbox, DMP 2160 printer, all with manuals, some good business software, all in good condition. £200. Phone 0924 863294.

Wanted

DMP2000 printer manual wanted desperately. Will pay up to £10. Phone Mark Burns 0387 720657 between 4pm and 6pm.

Deathsville desperately wanted. If anyone can help please write to Lynne Conche, 12 Pimpernel Way, Weedswood, Chatham, Kent ME5 0SF.

Penpals with 6128s to swap games, utilities, MF2 pokes and cheats, also hints and tips with programming. Write to Steven P Hyde, Flat 3/13 St Mary's Road, Leamington Spa, Warks CV31 1JN.

Amstrad 6128 (broken) wanted for parts. Will pay £20. Also Hitch Hiker's Guide 464 tape. Will pay £3 or swap for Laser Squad (tape). 0795 522836. Ask for Paul next door.

CPC 6128 or DDI-1 wanted. Swap for Wyse-85 terminal with green screen and/or 12.5Mhz 286 with Hewlet Packard base unit. Phone Jeff, Cheltenham 0242 575034.

Software on tape for public domain library. All tapes will be returned ASAP with some PD on them. Mark Caldwell, 356 Kenley Close, Liverpool 6 3BJ.

Back issues of Amstrad Action wanted. Issues wanted are 10, 12, 13 and 14. Will pay cover price plus postage. Tel 0222 795161 after 6pm. Please ask for Eddie.

Services

New PD library – Colrob PD. Tape only. For a catalogue send an SAE to Colin Hill or Robert Porter, 9 Aviemore Road, Hemlington, Middlesbrough, Cleveland.

Demon PD library has been completely restructured and now contains 180 selections of quality software. For a catalogue send an SAE to 47 Hilton Avenue, Hall Green, Birmingham B28 OPE.

User groups

WACCI, the UK's biggest and brightest CPC magazine for the seriously-minded CPC User. Send a stamp for details to WACCI, 7 Brunswood Green, Hawarden, Deeside, Clwyd CH5 3JA.

Other bits

CPC Power fanzine. For your copy filled with reviews, features, programming and more send £1 to R Wild, 33 Fast Lane, Sandiway, Northwich, Cheshire CW8 2QQ. Hurry.

Homegrown Machine Code games from strategy to shoot-'em-ups. Good graphics and playability. Menu driven. £2.99 plus disk or £4.99. Kevin Heywood, 18 Sinclair Avenue, Banbury, Oxon OX16 7DW.

SEND TO: SMALL ADS, AMSTRAD ACTION, 30 MONMOUTH STREET, BATH, AVON BA1 2BW

Please place the following advertisement in the next available issue of *Amstrad Action*

FREE READER ADS!

It's true – you can advertise in Amstrad Action for NOTHING! It's all part of our continuing efforts to provide you with the best value magazine possible.

Classification. Tick box: ❑ For Sale ❑ Wanted ❑ Services ❑ User Groups ❑ Other

Write your advertisement here, one word per box. Include your name and phone number if you want them printed.

Venture Forth

For verily, they did journey to far off lands to gain the wisdom of the Prophet Of Hairy, but he told them to go away, because he was on the toilet. So they waited centuries for the Prophet's descendant, Simon Forrester, to enlighten them in the ways of writing adventures.

You lot back again? I'd better write something then. Er, what did I say we were going to get up to this month last month? Oh, yeah, more about getting your adventure characters to interact. Right, I think this calls for another trip down the laundry.*

Key words

Let's create a woman to work in the washing powder shop, then. She'll be this hideous old battle-axe, who'll either witter endlessly about the weather, Mrs Pratsbottom-Dunghill's varicose veins and the personal lives of her neighbours, or she'll sell you some washing powder. This means that, if she's going to sell you some powder rather than prattle on, she'll be looking for a few words within your speech:

1 – GIVE, WANT, or HAVE
2 – I or ME
3 – POWDER

So as long as you trigger all three conditions, she'll go to the next step, which will be to see if you've got any money. If you have, a message something like the following will be displayed:

```
The distressingly frumpy woman behind the counter reached down, got a packet of powder, and took the money you offered for it. Thankfully, this whole hideous encounter with the housemaid from hell ended here, and you escaped with your life into the busy street.
```

It's quite simple to write stuff like this, but it gives atmosphere to an otherwise blocky adventure. But remember – in the routine, you need to place the player back in the street just outside the shop.

As well as this, you'll need to take the money from the player's pocket, and replace it with the washing powder.

A-wandering we shall go

What about her other attributes (*hang on, this is straying into Carry On territory – Dave*)? Will she wander about the streets? Probably not, to be frank, as an unattended powder shop could cause slight problems. It would be fun to give the player the opportunity to attempt to steal a packet of powder, probably by adding to the description:

```
You can see an unattended packet of powder on a shelf. What a stroke
```







* For any newcomers out there for whom this reference may seem a little odd, the fact is that when this series began, it was decided, by someone who's no longer on the mag, that the adventure we'd write would be all about going to the laundry. Don't ask why, you really don't want to know.

The mammoth Venture Forth Q&A session

In which Simon answers the most repeatedly-asked questions about adventures that you've been phoning and sending in since we started this series.

Should I write my adventure in Machine Code?

That's a toughie. You see, the whole point of computer languages is that different languages are better suited to different tasks. Is Machine Code suited to text adventure games? To be honest, not really. It can be useful, but the odds are you'd be far too busy working out how to do complex string functions to spend any time with the plot, content and quality of the game.

Machine Code is good, though, but you have to use it correctly. BASIC's advanced string handling capabilities (well, in comparison to Machine Code, anyway) make it the obvious choice, but who's to say you can't set up an RSX command to print strings you pass it in a slightly more glamourous, multicoloured font?

Failing that, if you want to store graphics as pictures as opposed to a series of lines and filled polygons, you'll need to knock up some kind of Machine Code routine to take care of this. In fact, I think I'll put something on the covertape at some point to let you store, display, save and load screens.

Are graphics important?

You'll find, once you start to get further into writing your game, that graphics may fall by the wayside to a large extent. The simple situation with graphics is this: your adventure is either graphically orientated or text based. If you are about to write a text-only game, you should make sure your descriptions, narrative and the like are of the very highest quality – you could have a picture of a dungeon, with the accompanying text, "You are in a dungeon. You can see...," but if you didn't have a picture, you'd have to go in for something a bit more like:

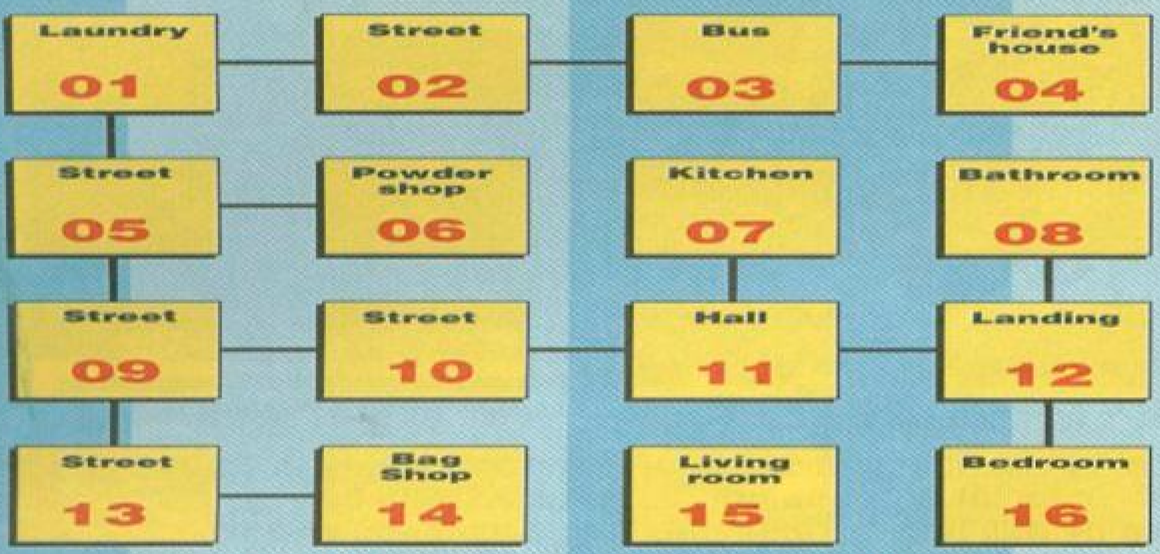
```
You're standing in a cold, dark dungeon. Only a vague shaft of light pouring in through the too-grimy window high up in the wall breaks the dark, foreboding shadows. Looking about you with a shiver, you can see...
```

As you can see, with a more descriptive (and, in a sense, poetic) narrative, you can completely do away with the need for a picture of any kind.

What's the ideal map size?

This depends wholly on the plot. For instance, if you were writing an epic romp around a huge landscape, you may well be looking at a map maybe 16 squares by 16 squares (giving a total of 256 locations). This may not seem like much, but an average-sized game like *Gnome Ranger* contains only 36 locations per level. 256 squares should be easily enough to keep your player satisfied for a lifetime.

If, however, you want to do something else with the next couple of years, and so haven't got the time to write 256 room descriptions and about 100



The map of the laundry adventure that this feature is all about.

`of luck, if you're an unattended packet thief - but you're not, are you?`

It's fun, and players will love it! When they try to half-inch the powder (*"half-inch"? You've been watching too much* EastEnders, *my son... er, I mean, Simon – Dave*) you could have the woman slapping the back of their hand, calling the police, giving you a lecture on the "yoof of today" or something. All this is straying off the point, though, but it's always a good idea to stuff as much detail into a game as possible. This is only one of the hundreds of little diversions you could build into a game even as small as this, so never restrict yourself to the straighter elements of the plot – the player doesn't know the route he's supposed to take, so you can't guarantee he'll take the one you want.

Who's a mug?

Let's have ourselves another character, now. A mugger, I reckon. This mugger will approach you in the street, and say, "Giz yer money," or such like, and then take all your cash, unless you escape him.

Nice and simple one, that. There has to be a way of escaping this particular fate, though, so Derek, our mugger, will be looking for a few key words:

1 – PLEASE or KILL
2 – ME or AWAY
3 – GO

Are you getting the hang of this now? Good... Those three test conditions allow the following phrases to be recognised:

```
1 Please let me go, sir
2 Please go away
3 Go away or I'll kill you
```

Are you beginning to realise just how versatile the system is? So anyway, our mugger is going to wander around quite a bit. However, you can't give him freedom of the map, because you're not likely to find many muggers in your bedroom, friend's house, etc. For wandering characters, then, you need to give a list of locations they can be in. For Derek the mugger, his access is limited to locations 1, 2, 3, 5, 9, 10, and 13 (see the map).

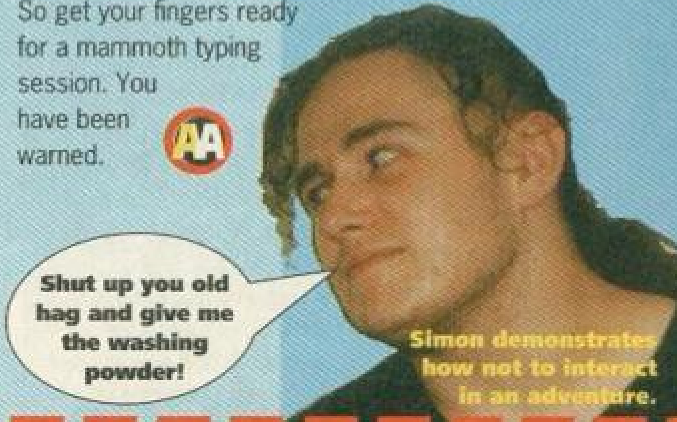
This is a great method for wandering characters, because you can assume that all characters are wandering, only some can only wander around one location – the powder seller, for instance, who's restricted to the powder shop.

This is a promise

Wait for it, wait for it – next month we will be printing the full program. No beating around the bush, it will be here, in full. In theory, you should have all written your own version of our laundry adventure by now, but things in theory have a habit of staying theoretical. So get your fingers ready for a mammoth typing session. You have been warned. AA







Simon demonstrates how not to interact in an adventure.

or so object descriptions, about 36 (a grid six squares by six squares) should suffice.

How difficult should I make it?

Difficulty is a tough one (*is that supposed to be a joke? – Dave*). I think my best move here would be to refer you to Tim Norris' hat/lock monologue of issue 95 – take a read:

"One of my pet hates in the puzzle department is the frequent lack of logic. A puzzle should be puzzling, of course, and if the solution is too obvious then your player will soon get bored. On the other hand, though, if your player gets stuck, looks at the clue sheet and says, 'Yeah, right. Like I was really going to think of doing that,' then you've lost them.

"For instance, never, ever, ever have a magic lock that only opens if you're wearing a hat. Hats don't open doors. Keys open doors. Magic spells open doors, if you insist, but hats never open doors. Ever. If your player arrives at the door without a hat and finds the door won't open, they'll go off in search of a key. All their energy will be focused on the acquisition of a key and they might well ignore a hat if they find it. When they find out the lock was activated by millinery, they'll hate you. They'll send letters of complaint to *AA* about you. Eventually you'll have to change your name and retire to the Hebrides. When you get there, people will say, 'Aren't you the hat-lock fellow?' and you'll die poor and unloved. Don't do it.

"Puzzles need to be logical, but not necessarily straightforward. Let's get back to the locked door. You need a key, but just walking round the corner and picking up a key wouldn't be much of a challenge. What if the key is plainly visible in a little rocky recess, but when you reach in for it a huge rock smashes down to block your access to it? You need some means of stopping the rock from falling. A stick? Whatever the solution, the things you need have to be pretty nearby and their use has to be logical, if not obvious. It's not a bad thing to leave your player completely stumped if they say, 'Yes, of course, how clever,' when they find out what's going on. Anything to do with hat-operated doors, though, and you might as well kill yourself straight away.'

What makes an adventure 'fun'?

There's a question and a half (pedants, don't argue). The way we see it, there are two ways your adventure can go. You can either have wonderfully verbose text, with incredibly detailed and straight descriptions to provide atmosphere, or you can opt for the humorous approach. The more serious approach has the same kind of appeal as something like *Lord Of The Rings* (the book), whereas humour can have your player rolling around the room in mirth, so keeping the adventure constantly entertaining.

The one thing you must never do is stray from the generic concept. For instance, if you were to write, for example, a *Red Dwarf* adventure, you should never, and I repeat, never stuff it full of 'in jokes', as someone who hasn't seen the TV series will just be alienated.

The plot also needs to be interesting and original; try to come up with fresh ideas. Goblins kidnapping princesses and dragons guarding treasure are more of a yawn than a Hungarian film about the gestation period of the Himalayan snail (though sometimes using clichés to take the mick out of them can be effective). But most of all keep the puzzles interesting and challenging. Puzzles are the meat of any adventure; if they don't work, no amount of Booker Prize-winning text will help. AA

Type-Ins

Climbing mountains. Rowing bath tubs across the Atlantic. Typing in listings. Herculean human achievements, the lot of 'em. Simon Forrester presents this month's epic selection...

Menus

First up this month, R Shaw has provided us with a nifty little program for creating menus for disk programs. Run the first program to create a data file, saving that data file on to the disk where you want your menu to be. Next, save the second program to the destination disk, and run it; it loads up and uses the data file you created with the first program.

The Type-ins Workshop or, hang on, just what the heck are all these boxes about, then?

You could just type in these listings and use the programs, but let's face it, if you're new to programming a lot of the commands might not make sense and copying them parrot fashion just ain't gonna be much use to you. That's why we've introduced the Type-Ins Workshop, in which I highlight certain lines and explain what they do. Brilliant concept, or what?

```
BAIA 1000·'
MAEP 1010·'Menu·Generator·by·R·A·Shaw·April·1
     993
BAKA 1020·'
MBPE 1030·MODE·2:WINDOW·1,80,2,25:WINDOW#1,3,
     38,5,16:WINDOW#2,41,70,2,19:WINDOW#3,1,8
     0,21,23:WINDOW#4,10,80,24,25:WINDOW#5,1,
     80,1,1
EADO 1040·PEN#5,0:PAPER#5,1
EAOB 1050·maxops=12
OBAC 1060·msg$="Use·cursor·keys·and·press·ENT
     ER·to·choose;·press·space·bar·to·return·
     to·menu"
NANO 1070·DIM·name$(maxops+1),prog$(maxops+1)
     ,op$(4)
LBED 1080·op$(1)="Add·Choices··":op$(2)="Del
     ete·Choices":op$(3)="Change·Choices":op$
     (4)="Quit·········"
```

1030 – 1040

Here's a pretty straightforward use of the window system. What the WINDOW command is actually doing is setting up a window as follows:

`WINDOW #num,left,right,top,bottom`

Where there isn't a window number, the command sets window 0, which is the standard text window.

Line 1040 contains the PEN commands using the same # system. This is to accommodate the setting of different paper and ink values in each window. For instance, in this line, the paper and pen in window 5 are set to 1 and 0 respectively.

```
CBNN 1090·CLS#5:PRINT#5,TAB(33)"Menu·Generato
     r"TAB(65)CHR$(164)"·R·A·Shaw·1993"
JBJK 1100·LOCATE·16,11:PRINT·CHR$(24)"·Please
     ·insert·disk·in·drive·and·press·a·key...
     ·"CHR$(24)
IACO 1110·i$="":WHILE·i$="":i$=INKEY$:WEND
BAGM 1120·CLS
FAAH 1130·ON·ERROR·GOTO·1730
CAJB 1140·PEN·0
GAAB 1150·OPENIN"menu.dat"
CAOB 1160·CLS#1
EABM 1170·INPUT#9,nops
FAAH 1180·FOR·n=1·TO·nops
IAOG 1190··INPUT#9,name$(n),prog$(n)
JAHP 1200··PRINT#1,name$(n);TAB(23)prog$(n)
CADC 1210·NEXT
CACP 1220·CLOSEIN
PABO 1230·PEN·1:LOCATE·3,2:PRINT"Name·on·Menu
     "TAB(25)"Program";
DAIF 1240·GOSUB·1880
MABH 1250·CLS#4:PRINT#4,op$(1)"···"op$(2)"···
     "op$(3)"···"op$(4)
PAAN 1260·WINDOW·SWAP·2:CLS:|DIR,"*.b*":WINDO
     W·SWAP·2:nl=VPOS(#2)-2
ABIJ 1270·x=1:y=1:v=1:strlen=17:hilen=15:cols
     =4:w=4:GOSUB·1750
```

1150 – 1170

This bit is worth picking out to stop people getting confused. The OPENIN command is actually pointing the CPC to a user-created file, containing variables. You're about to see how it works.

Well you would be, but first, the program executes a CLS #1 command, clearing window 1.

Next, there's an INPUT #9 command. However, it's not as simple as you may think. You see, there isn't a window 9. That window is, in fact, the file the program has just pointed the CPC to! Remember, then, that window 9 always refers to filing.

```
HAOO 1280·ON·op·GOSUB·1300,1420,1550,1660
DAPA 1290·GOTO·1270
EAPJ 1300·'Add·choice
JAIH 1310·IF·nops=maxops·THEN·RETURN
EAAG 1320·PRINT#3,msg$
DAOK 1330·n=nops+1
BBJD 1340·x=1:y=4:v=nl:strlen=15:hilen=12:col
     s=2:w=2:GOSUB·1750
CABC 1350·CLS#3
GAGB 1360·IF·i$="·"·THEN·RETURN
EAPF 1370·prog$(n)=x$
JACD 1380·LOCATE#1,23,n:PRINT#1,x$;CHR$(13);
ABND 1390·INPUT#3,"Name·to·Appear·on·Menu:·",
     n$:IF·n$=""·THEN·1340
MADK 1400·name$(n)=LEFT$(n$,20):PRINT#1,name$
     (n):CLS#3
```



This was the menu screen I created for my AA work disk using the Menus listing.

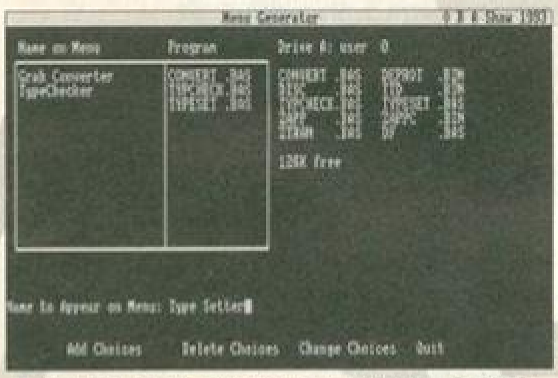
```
HAHF 1410·nops=nops+1:GOTO·1310
FAMM 1420·'Delete·Choice
HADB 1430·IF·nops=0·THEN·RETURN
EADG 1440·PRINT#3,msg$
CBHB 1450·strlen=20:hilen=20:w=1:cols=1:x=1:y
     =1:v=nops:GOSUB·1750
CADC 1460·CLS#3
GAIB 1470·IF·i$="·"·THEN·RETURN
CAJB 1480·v=y
FAIL 1490·FOR·m=v·TO·nops
MAMK 1500··name$(m)=name$(m+1):prog$(m)=prog$
     (m+1)
NBDF 1510··LOCATE#1,1,m:PRINT#1,SPACE$(20)CHR
     $(13)name$(m):LOCATE#1,23,m:PRINT#1,SPAC
     E$(12):LOCATE#1,23,m:PRINT#1,prog$(m);
CAHC 1520·NEXT
OAND 1530·name$(nops)="":prog$(nops)="":nops=
     nops-1
DALA 1540·GOTO·1430
FADO 1550·'Change·choice
HAHB 1560·IF·nops=0·THEN·RETURN
EAHG 1570·PRINT#3,msg$
CBLB 1580·strlen=20:hilen=20:w=1:cols=1:x=1:y
     =1:v=nops:GOSUB·1750
CAHC 1590·CLS#3
GADB 1600·IF·i$="·"·THEN·RETURN
CAMA 1610·n=y
MAGA 1620·INPUT#3,"Name·to·Appear·on·Menu:·",
     n$
DBIO 1630·IF·n$<>""·THEN·name$(n)=LEFT$(n$,20
     ):LOCATE#1,1,n:PRINT#1,SPACE$(20)CHR$(13
     )n$
CADC 1640·CLS#3
DABB 1650·GOTO·1560
FAME 1660·'Save·and·end
GAIH 1670·OPENOUT"menu.dat"
EAEM 1680·PRINT#9,nops
FAGH 1690·FOR·n=1·TO·nops
KALI 1700··PRINT#9,name$(n):PRINT#9,prog$(n)
CAIC 1710·NEXT
EAJG 1720·CLOSEOUT:END
GAKB 1730·'Error·handler
KADI 1740·IF·DERR·<>·146·THEN·END·ELSE·RESUME
     ·1230
BAEB 1750·'
```

1670 – 1720

Here the program uses the OPENOUT command, which actually creates a variable file. In this example, the program is writing out to it, using PRINT #9, before issuing a CLOSEOUT to tell the CPC it has finished writing to the file.

Remember, though, that you can only write to OUT files, and only read from IN files. Also, the variable names don't have to be the same when you take information from a file as they were when you put the information in. The contents of the variables are stored; the variable names are not.

```
GDDN 1760·'Highlighting·routine·-·parms·are·x
     ,y,v(=no.·of·rows),hilen(=no.·of·chars·t
     o·highlight),strlen(=total·chars·in·colu
     mn),cols(=no.of·columns),w(=window·no.)
BAGB 1770·'
IALG 1780·xs=x:ys=y:xop=1:yop=1
ABEB 1790·x$="":FOR·a=0·TO·hilen-1:LOCATE#w,·
     x+a,y:c$=COPYCHR$(#w)
PAHD 1800·x$=x$+c$:NEXT:LOCATE#w,·x,y:PRINT#w
     ,·CHR$(24)x$CHR$(24)
PBIJ 1810·i$=LOWER$(INKEY$):IF·i$=""·THEN·181
     0·ELSE·IF·i$=CHR$(13)·OR·i$="·"·THEN·op=
     x\strlen+1:LOCATE#w,x,y:PRINT#w,x$:RETUR
     N
KALB 1820·IF·i$<CHR$(240)·OR·i$>CHR$(243)·THE
     N·1810
EBDD 1830·yn=y+(i$=CHR$(240))-(i$=CHR$(241)):
     xn=x+strlen*((i$=CHR$(242))-(i$=CHR$(243
     )))
MBGP 1840·IF·yn<ys·OR·yn>v·OR·xn<xs·OR·xn>(co
     ls-1)*strlen+1·THEN·1810·ELSE·LOCATE#w,·
     xn,yn:c$=COPYCHR$(#w)
EAOP 1850·IF·c$="·"·THEN·1810
MBOH 1860·IF·yn>y·THEN·yop=yop+1·ELSE·IF·yn<y
     ·THEN·yop=yop-1·ELSE·IF·xn>x·THEN·xop=xo
     p+1·ELSE·xop=xop-1
NAEM 1870·LOCATE#w,x,y:PRINT#w,x$:x=xn:y=yn:G
     OTO·1790
EAPA 1880·'Draw·box
CBPC 1890·LOCATE·2,3:PRINT·CHR$(150)STRING$(2
     1,154)CHR$(158)STRING$(14,154)CHR$(156);
KBAN 1900·FOR·n=4·TO·15:LOCATE·2,n:PRINT·CHR$
     (149);:LOCATE·24,n:PRINT·CHR$(149);:LOCA
     TE·39,n:PRINT·CHR$(149);:NEXT
CBMF 1910·LOCATE·2,16:PRINT·CHR$(147)STRING$(
     21,154)CHR$(155)STRING$(14,154)CHR$(153)
     ;
CAMM 1920·RETURN
```



Menus is dead easy to use – I just selected the files I wanted, and off it went!

And the actual menu program:

```
BAIA 1000·'
LAEF 1010·'Menu·Program·by·R·A·Shaw·May·1993
BAKA 1020·'
ECCO 1030·'**·In·the·following·line·m·is·the·
     mode,·either·1·or·2;·lines·is·the·······
     ·······spacing·i.e.·1=single,·2=double·et
     c.
EADI 1040·m=1:lines=1
GAJE 1050·MODE·m:cols=20*2↑m
DAPM 1060·DIM·msg$(2)
FCBE 1070·msg$(0)="···Choose·with·cursor·keys
     ,··":msg$(1)="····space·bar·or·joystick.
     ···":msg$(2)="·Press·fire·or·enter·to·ru
     n.·"
HAOM 1080·lc=(cols-LEN(msg$(0)))\2
JAIH 1090·WINDOW#1,lc,lc+LEN(msg$(1)),23,25
EAIN 1100·PEN#1,0:PAPER#1,1
HACB 1110·DIM·name$(12),prog$(12)
DAGN 1120·maxlen=0
GBIC 1130·PRINT·CHR$(24);SPACE$((cols-4)/2);"
     Menu";TAB(cols-13)CHR$(164)"R·A·Shaw·199
     3"CHR$(24)
```

Printing

Where does this come into it? I'll tell you. If you want to use a printer that's connected to your CPC in the normal way (through the printer port), all you have to do is print stuff to window 8. You can't set dimensions for window 8, nor can you use the INPUT command with it, but that's the window to print with – try it!

```
KABC 1140·OPENIN"menu.dat":INPUT#9,nops
NAKA 1150·FOR·n=1·TO·nops:INPUT#9,name$(n),pr
     og$(n)
NAKP 1160·l=LEN(name$(n)):IF·l>maxlen·THEN·ma
     xlen=l
CAIC 1170·NEXT
CAHP 1180·CLOSEIN
CBFG 1190·sc=(cols-maxlen)\2:sr=12-(1+nops*li
     nes)\2:LOCATE·sc,sr
FAJG 1200·FOR·n=1·TO·nops
HAJI 1210·PRINT·name$(n);TAB(sc);
NADI 1220·FOR·m=1·TO·lines-1:PRINT:PRINT·TAB(
     sc);:NEXT
CAFC 1230·NEXT
NAMJ 1240·FOR·n=0·TO·2:LOCATE#1,1,n+1:PRINT#1
     ,msg$(n);:NEXT
HANE 1250·LOCATE·sc,sr:GOSUB·1290
LADC 1260·CLS#1:LOCATE#1,10,2:PRINT#1,"Loadin
     g..."
FALA 1270·RUN·prog$(op)
BACM 1280·END
BADB 1290·'
KABD 1300·'Highlighting·Subroutine
BAMA 1310·'
GAGP 1320·op=1:r=sr:pe=1:pa=0
IAGB 1330·IF·lines=0·THEN·lines=1
DAOE 1340·GOSUB·1500
HAGI 1350·i$=INKEY$:IF·i$=""·THEN·1350
ABNA 1360·i=ASC(i$):IF·i=13·OR·i=88·OR·i=90·T
     HEN·PRINT·CHR$(24):RETURN
CBPI 1370·IF·i=241·OR·i=10·OR·i=32·THEN·1390·
     ELSE·IF·i=240·OR·i=11·THEN·1450·ELSE·135
     0
BADB 1380·'
CAMK 1390·'Down
BAMA 1400·'
DAME 1410·GOSUB·1500
ABOF 1420·op=op+1:IF·op>nops·THEN·op=1:r=sr·E
     LSE·r=r+lines
DAJA 1430·GOTO·1340
BAAB 1440·'
BAGN 1450·'Up
BACB 1460·'
DACF 1470·GOSUB·1500
EBCN 1480·op=op-1:IF·op=0·THEN·op=nops:r=r+(n
     ops-1)*lines·ELSE·r=r-lines
DAPA 1490·GOTO·1340
OBFA 1500·LOCATE·sc,r:pe=3-pe:pa=3-pa:PEN·pe:
     PAPER·pa:PRINT·name$(op);SPACE$(maxlen-L
     EN(name$(op)));:RETURN
```

Dinosaur!

And you thought you wouldn't get a *Jurassic Park* spin off on your CPC... Paul Neave obliges us with a groovesome little dinosaur game.

```
IAKM 10·'·***··FOR·BRILL·AMSTRAD·ACTION··***
GAMK 20·'·***·D··I··N··O··S··A··U··R··!!·***
JACN 30·'·***··by·me,·Paul·Neave·age·14··***
KADK 40·'·***·©·September·-·October·1993·***
KAFF 50·'·***·WARNING·some·6128·commands·***
LALM 60·'·***·are·used·in·this·programme·***
AAOK 70·'
JAIH 80·SYMBOL·AFTER·223:FOR·chr=223·TO·255
```

Typing listings

If you've never typed in a listing from *AA* before, then reading this following blurb is a REALLY GOOD IDEA.

- Basically, all you need to do is type in exactly what we print EXCEPT the first four letters in each line.
- The first four letters are a code which work in conjunction with our unique and utterly excellent *TypeChecker* program below.
- Only press RETURN when you get to the end of a command line. If a command line goes on to two lines do not press RETURN at the break in the line. Your lines on screen should break in exactly the same place as they do in the mag.

TypeChecker

This is a program that enables you to check whether you have typed *AA* listings in correctly. Type it in, then SAVE it for future use. So, when you want to type in an *AA* listing, and you want to double check that you got it right:

- Load up *TypeChecker*.
- Type NEW.
- Type in the listing of your choice.
- When you've finished type LIST.
- At the end of every line a highlighted code will appear. It should correspond with the code printed in front of the same line in *AA*. If it doesn't you have typed in that line incorrectly.

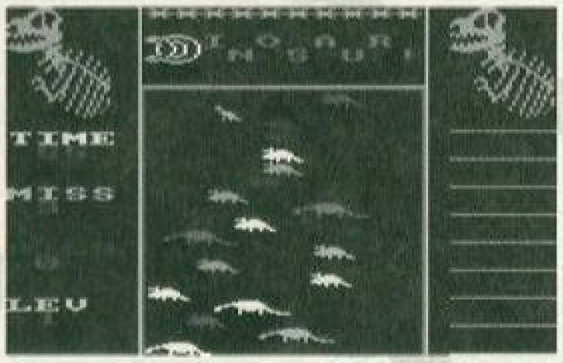
```
PAML 10·'·TypeChecker·V1.0·-·By·Simon·Forrest
     er·-·Dec·1992
MAOJ 20·'·For·Amstrad·Action·-·Public·Domain
DANK 30·MEMORY·&9FFF
CAJK 40·csum=0
GAME 50·FOR·addr=&A000·TO·&A05B
DAKJ 60·READ·byte$
GAJB 70·byte=VAL("&"+byte$)
FACF 80·POKE·addr,byte
GAFB 90·csum=csum+byte
DALK 100·NEXT·addr
OACI 110·IF·csum<>&2ADD·THEN·PRINT·"Checksum·
     Error":END
LAHE 115·POKE·&A001,PEEK·(&BB5B):POKE·&A002,P
     EEK·(&BB5C)
KAHI 120·POKE·&BB5A,&C3:POKE·&BB5B,&3:POKE·&B
     B5C,&A0
MACN 130·PRINT·"TypeChecker·V1.0·Installed":E
     ND
MABC 140·DATA·CF,FE,93,FE,0A,CA,00,A0,F5,C5,D
     5,E5,FE,0D,CA,22
LACJ 150·DATA·A0,5F,16,00,2A,5A,A0,19,22,5A,A
     0,E1,D1,C1,F1,C3
LAFJ 160·DATA·00,A0,3E,20,CD,00,A0,3E,18,CD,0
     0,A0,2A,5A,A0,7C
LADI 170·DATA·CD,45,A0,7D,CD,45,A0,3E,18,CD,0
     0,A0,21,00,00,22
LACN 180·DATA·5A,A0,C3,1B,A0,F5,E6,0F,C6,41,C
     D,00,A0,F1,E6,F0
KAJC 190·DATA·1F,1F,1F,1F,C6,41,CD,00,A0,C9,0
     0,00,END
```

Turning *TypeChecker* off (it is automatically initialised when you RUN the program above) and back on again is quite simple:

`POKE &BB5B,0` To turn it off
`POKE &BB5B,3` To turn it back on again

TypeChecker was an *Amstrad Action* presentation brought to you in association with Hairy Happening Productions Ltd.

```
HAFL 90·READ·c1,c2,c3,c4,c5,c6,c7,c8
MAGN 100·SYMBOL·chr,c1,c2,c3,c4,c5,c6,c7,c8:N
     EXT·chr
JAEK 110·SPEED·INK·8,8:t=60:d=0:hi=0:lev=1
FAHD 120·ON·BREAK·GOSUB·990
BCGE 130·MODE·0:BORDER·0:INK·0,0:INK·1,13:INK
     ·2,26:INK·3,8:INK·4,6:INK·5,16:INK·6,3:I
     NK·7,24:INK·8,18:INK·9,2:INK·10,20:INK·1
     1,9:INK·12,14,15:INK·13,15,14
KAGF 140·PAPER·0:CLS:ORIGIN·0,0:GRAPHICS·PEN·
     10
GAEC 150·MOVE·152,0:DRAW·152,3983
GAGA 160·MOVE·486,0:DRAW·486,398
GAPF 170·MOVE·152,308:DRAW·486,308
EALO 180·MOVE·156,0:FILL·11
LAKM 190·LOCATE·1,10:PEN·7:PRINT"TIME":PEN·4:
     PRINT·t
LAEM 200·LOCATE·1,14:PEN·8:PRINT"MISS":PEN·4:
     PRINT·d
MALB 210·LOCATE·1,18:PEN·9:PRINT"HIGH":PEN·4:
     PRINT·hi
MAMH 220·LOCATE·1,22:PEN·10:PRINT"LEV":PEN·4:
     PRINT·lev
ABFA 230·PEN·5:FOR·x=9·TO·25·STEP·2:LOCATE·17
     ,x:PRINT"____";:NEXT·x
IAOB 240·PEN·12:LOCATE·6,1:PRINT"*·*·*·*·*"
PANL 250·PEN·13:LOCATE·6,1:PRINT·CHR$(22);CHR
     $(1);"·*·*·*·*·*";CHR$(22);CHR$(0)
IANC 260·PEN·3:LOCATE·8,3:PRINT"I·O·A·R"
GAMK 270·LOCATE·9,4:PRINT"N·S·U·!"
HAFE 280·'·*·Symbol·data·223-255·*
GAIC 290·DATA·1,7,31,115,193,193,1,1
HALC 300·DATA·248,252,254,254,255,117,4,4
FALK 310·DATA·0,0,0,0,0,128,224,60
GAEP 320·DATA·192,192,32,120,60,28,46,43
```



The type-in that was 30 million years in the making, and takes only 30 minutes to type!

```
GAPP 330·DATA·32,238,63,127,255,255,41,9
GACG 340·DATA·0,0,0,128,128,192,96,48
FAGF 350·DATA·0,0,1,3,3,7,63,126
HACF 360·DATA·120,252,252,230,162,35,35,35
HAHJ 370·DATA·126,254,158,159,31,31,159,250
HAAE 380·DATA·39,38,54,54,254,254,255,255
GALJ 390·DATA·170,40,0,1,85,87,255,255
HAMJ 400·DATA·191,31,95,126,254,249,255,239
FAAE 410·DATA·127,30,0,0,0,0,0,0
GANL 420·DATA·158,62,31,31,27,31,55,103
HAPB 430·DATA·32,36,68,68,200,200,232,113
GAMB 440·DATA·0,0,0,0,128,128,128,32
FAKP 450·DATA·70,79,10,27,17,17,1,1
HAKF 460·DATA·153,141,150,146,147,19,50,34
GAMP 470·DATA·32,32,64,72,72,136,144,208
EAMK 480·DATA·0,0,1,1,0,0,0,0
HABH 490·DATA·193,194,98,34,36,100,244,177
HAME 500·DATA·36,100,68,68,200,201,201,137
HAJG 510·DATA·116,164,188,152,188,44,44,44
FADP 520·DATA·17,27,26,14,13,13,8,0
HADD 530·DATA·137,145,146,146,18,34,36,36
HAIA 540·DATA·72,72,80,80,84,148,164,164
FACN 550·DATA·36,69,73,73,9,10,2,2
GAKM 560·DATA·164,32,72,64,80,128,128,0
GAPG 570·DATA·1,118,136,98,17,9,16,16
GAOP 580·DATA·224,24,4,194,34,17,145,145
GABN 590·DATA·16,16,9,17,98,136,118,1
GAHP 600·DATA·145,145,17,34,194,4,24,224
GAAM 610·DATA·56,56,16,124,146,40,40,40
GAPJ 620·'·*·Set·up·$trings·*
LCHC 630·dino$=CHR$(229)+CHR$(230)+STRING$(2,
     8)+CHR$(10)+CHR$(231)+CHR$(232)+STRING$(
     2,8)+CHR$(10)+CHR$(233)+CHR$(234)+STRING
     $(2,8)+CHR$(10)+CHR$(235)+CHR$(236)+CHR$
     (237)+CHR$(238)+STRING$(4,8)+CHR$(10)
MCJF 640·saur$="·"+CHR$(239)+CHR$(240)+CHR$(2
     41)+STRING$(4,8)+CHR$(10)+CHR$(242)+CHR$
     (243)+CHR$(244)+CHR$(245)+STRING$(4,8)+C
     HR$(10)+"·"+CHR$(246)+CHR$(247)+CHR$(248
     )+STRING$(4,8)+CHR$(10)+"··"+CHR$(249)+C
     HR$(250)
MAOB 650·dinosaur$=dino$+saur$:man$=CHR$(255)
JANI 660·Diplod$=CHR$(223)+CHR$(224)+CHR$(225
     )
EANK 670·Trex$=CHR$(226)
HAPO 680·Tricera$=CHR$(227)+CHR$(228)
HANI 690·'·*·Draw·main·screen·*
KAKI 700·PEN·2:LOCATE·6,3:PRINT·CHR$(251);CHR
     $(252)
JABC 710·LOCATE·6,4:PRINT·CHR$(253);CHR$(254)
JANP 720·PEN·1:LOCATE·1,1:PRINT·dinosaur$
IAHM 730·LOCATE·17,1:PRINT·dinosaur$
EABH 740·WINDOW·6,15,7,25
JAEI 750·PAPER·11:PEN·6:PRINT·CHR$(22);CHR$(1
     )
HANJ 760·LOCATE·1,1:PRINT"*THE·GAME*"
KALF 770·PEN·9:LOCATE·1,1:PRINT"__________"
CCDF 780·PEN·7:PRINT:PRINT"What·you··have·to·
     dois·dodge··dinosaurs·coming·at·you.·Use
     ··the·cursorkeys.":PEN#1,6
HAMH 790·CLEAR·INPUT:CALL·&BB18:CLS
IAIO 800·PEN·6:LOCATE·1,1:PRINT"*THE··AIM*"
KAGF 810·PEN·9:LOCATE·1,1:PRINT"__________"
HCPF 820·PEN·8:PRINT:PRINT"This·is·toget·the·
     ··highest···amount·of·dinosaurs·dodged·i
     n·the·time··given.····There·are·5·levels
     ."
NBNM 830·CLEAR·INPUT:CALL·&BB18:CLS:GRAPHICS·
     PAPER·0:PAPER·0:WINDOW#1,1,4,15,15:WINDO
     W#2,1,4,19,19:PEN#2,4:PAPER#2,0:ORIGIN·1
     60,0
JAGP 840·WINDOW#3,1,4,11,11:EVERY·50,1·GOSUB·
     1290
ACFJ 850·CLS:posit=140:WHILE·TEST(posit+8,18)
     =0:TAG:GRAPHICS·PEN·5:MOVE·posit,14:PRIN
     T·man$;:r=INT(RND*4):PRINT#2,INT(hi);
HAPB 860·IF·r=1·THEN·din$=Trex$
IAIE 870·IF·r=2·THEN·din$=Tricera$
HAMN 880·IF·r=3·THEN·din$=Diplod$
EBJF 890·GRAPHICS·PEN·(INT(RND(1)*11)+1):MOVE
     ·RND(1)*232,300:PRINT·din$;:TAGOFF:d=d+0
     .125
OACG 900·IF·lev=1·AND·d=4·THEN·CLEAR:lev=2:t=
     55:CLS:GOTO·120
OAEG 910·IF·lev=2·AND·d=8·THEN·CLEAR:lev=3:t=
     50:CLS:GOTO·120
OAGJ 920·IF·lev=3·AND·d=12·THEN·CLEAR:lev=4:t
     =45:CLS:GOTO·120
OAIJ 930·IF·lev=4·AND·d=16·THEN·CLEAR:lev=5:t
     =40:CLS:GOTO·120
KAGG 940·IF·lev=5·AND·d=20·THEN·CLEAR:GOTO·11
     00
IAJN 950·PAPER#1,0:PEN#1,4:PRINT#1,INT(d);
NCHA 960·LOCATE·1,1:PRINT·CHR$(11);CHR$(11);:
```



This program was actually sent in by someone declaring, 'My CPC can do anything an Industrial Light & Magic machine can!'

```
     posit=posit-((INKEY(8)+1)·AND·posit)=0)*
     4:posit=posit+((INKEY(1)+1)·AND·posit(61
     2)*4:WEND:PRINT"OH·DEAR!!":FOR·p=1·TO·10
     00:NEXT·p
FADM 970·IF·d)hi·THEN·hi=d
DACM 980·d=0:GOTO·850
CCIA 990·x=INT(RND*90):PAPER·0:PEN·1:MODE·1:P
     RINT"OH!·so·you·want·to·stop,·DO·YOU??":
     x=x*10:PRINT:PRINT"Syntax·error·in";x
JABG 1000·PRINT"DATA·exhausted·in";x
HABL 1010·PRINT"Overflow·in";x
IAKK 1020·PRINT"Memory·full·in";x
MAIL 1030·PRINT"Subscript·out·of·range·in";x
KAPE 1040·PRINT"Unknown·command·in";x
IAPB 1050·PRINT"Cannot·CONTinue"
DAGN 1060·FOR·b=1·TO·5
GANO 1070·PRINT"*Break*":NEXT·b
IAIE 1080·PRINT"Break·in";x;CHR$(7);
GADL 1090·CLEAR:CLEAR·INPUT:END
GAOG 1100·SOUND·1,478:SOUND·1,478
GAPF 1110·SOUND·1,506:SOUND·1,506
GAGG 1120·SOUND·1,536:SOUND·1,536
GABH 1130·SOUND·1,568:SOUND·1,568
GAAH 1140·SOUND·1,638:SOUND·1,568
GALG 1150·SOUND·1,506:SOUND·1,478
GAEH 1160·SOUND·1,478:SOUND·1,478
GAHH 1170·SOUND·1,956:SOUND·1,956
GAIH 1180·SOUND·1,956:SOUND·1,956
OAJC 1190·MODE·1:wd$="WELL·DONE":INK·0,0:INK·
     1,24:INK·2,20:INK·3,6
EAIH 1200·FOR·wd=0·TO·12
LAGG 1210·PEN·1:PRINT·wd$;STRING$(wd,33):NEXT
     ·wd
GADF 1220·FOR·wd=11·TO·0·STEP·-1
JAKP 1230·PRINT·wd$;STRING$(wd,33):NEXT·wd
EAPL 1240·INK·0,1:BORDER·1
MAEP 1250·xx=INT(RND*700):yy=INT(RND*400):g=I
     NT(RND*3)+1
MAKJ 1260·TAG:GRAPHICS·PEN·g:MOVE·xx,yy:PRINT
     ·wd$;
NAMN 1270·go=go+1:IF·go=100·THEN·INK·0,0,26:G
     OTO·1280·ELSE·1250
GBEK 1280·FOR·p=1·TO·1000:NEXT·p:INK·0,1:MODE
     ·1:PEN·3:PRINT"·DINOSAUR!·-·Paul·Neave":
     PEN·1:END
GAFF 1290·SOUND·1,100:SOUND·1,200
BBON 1300·IF·t=0·THEN·LOCATE·1,1:PRINT"TIME'S
     ·UP!":FOR·p=1·TO·1000:NEXT·p:RUN
JANE 1310·t=t-1:PEN#3,4:PRINT#3,t;:RETURN
EAKE 1320·'·*·THAT'S·IT!·*
```

Function Keys

Following this month's main theme of the issue about making your life easier (a concept with which I can really sympathise), here's a dead simple, and mercifully short, program from Nicholas Johnson of Christchurch, New Zealand, that defines various often-used words in programming to the function keys. The easiest way to work out what each key does is just to run the program and press each one. Anyway, here goes:

```
BADG 10·CLS
GAED 20·KEY·129,"list"+CHR$(13)
FAGM 30·KEY·130,"run"+CHR$(13)
GAGB 40·KEY·131,"load"+CHR$(34)
GAHC 50·KEY·132,"save"+CHR$(34)
FAPM 60·KEY·133,"run"+CHR$(34)
EANF 70·KEY·134,"mode·"
FACD 80·KEY·135,"locate·"
DAOP 90·KEY·136,"cls·"
GAGP 100·KEY·137,"print·"+CHR$(34)
GAAI 110·KEY·128,"auto·"+CHR$(13)
BANJ 120·NEW
```

ROMBO DISCOUNTS

ROMBO ROMBOARD

Now only £25.00

The most widely used of all Romboards. 8 sockets; on/off switch for each; high 8 or low 8 ROM slots selectable; facility for a ZIF socket or 16k RAMROM.

DISCOUNTS

20% - with the Dual-Mode Drive
10% - with ROM software valued at £20 or more.

EPROM PROGRAMMER

with ejector socket - £30
with ZIF socket - £35

Programs 8k and 16k, 12.5v and 21v eproms; full eprom, part eprom and single byte programming; ROM file editing. Supplied with easy to use menu driven Software, PD games ROM file, utilities to turn Basic and machine.

32k RAMROM - £14.95

32k of RAM in two 16k blocks. Each behaves like a ROM, surviving resets, when loaded with ROM software. Ideal for testing ROM programs without the need to blow/ erase eproms.

3½" DUAL-MODE DRIVE

Pound for pound the best value around

Now includes 22DISK - the No. 1 CPC/PC/CPC file transfer program.

Also includes:-

*** MS800 on disc * MS800 on ROM**
*** 10 blank discs * carriage**

Our superior drives do everything that all other 3.5" drives do - and more besides!

CHECK OUT THESE FEATURES:-

MODE 2: Full, unimpeded use with Rodos, Ramdos, Romdos and Romdos XL giving up to 800k per disc without the need to use the SIDE SWITCH. The statement elsewhere that "*other drives. . . will only allow you to access 400k at a time*" is a lie as many who have resorted to adding their own side switch to inferior drives can confirm. Full use of MS800, the no.1 high capacity formatter - 800k per disc at 400k per side. MODE 1: works as a complete alternative to the FD1 B drive - 180k per side. Without the side switch, mode 1 is not possible.

OVERALL: Ultra quiet mechanism, the type used in most professional computers; super small; separate power supply; sleek metal case. You need to buy nothing else to use your drive immediately. MS800 is supplied on disc and ROM whether or not you have a Romboard - *see the ROMBO DISCOUNTS*.

464 PLUS 1st drive - see this ad.
Old 464 1st drive - not suitable.

Please state your computer model when ordering.

£79.95 complete

464 PLUS 1st DRIVE - under £120

BONZO SUPER MEDDLER

Exceptionally good tape to disc transfer utility, very large on-disc database of verified transfers. Produces stand-alone transfers.

BONZO BLITZ

Transfers all varieties of SPEEDLOCK tapes onto disc, producing *stand-alone* transfers. On-disc database of verified transfers. Includes 4 adventure games - *FREE!*

BONZO'S FLASHPACK

Over 60 additions to Basic, some very powerful. Flash Basic's commands can be used within your own Basic programs but it does not need to be present for the programs to run!

MAXIDOS

The most comprehensive and effective general disc utility available for the CPC. All features work with Amsdos, CPM, Ramdos and Romdos. Includes:- disc/file copy, disc optimise, CAT inc. erased files, restore erased files, disc editor and much much more.

BONZO'S BIG BATCH

Fast, flexible Database; superb pools predictor; screen and sprite designer.

SUPER MEDDLER	13.95
BLITZ	13.95
FLASHPACK	9.95
BIG BATCH	9.95
MAXIDOS	13.95
22 DISK PC/CPC/PC transfers	5.00

ROM SOFTWARE

PROTEXT	£30	UTOPIA	£25
PROSPELL	£25	MAXAM	£30
PROMERGE	£25	MAXAM 1.5	£25
PD GAMES ROM (2 games)			£3.50
6128 UPGRADE ROM			

3rd DRIVE SWITCH	12.95
ABBA SWITCH	12.95
SIDE SWITCH (kit)	3.00
SIDE SWITCH (plug-on)	5.95
ABBA & SIDE combined	14.95
3" Amsoft discs	10 for 20.00
3.5" disc ... 10 for £7.50;	30 for 20.00
3" individual disc case	10 for 5.95
3.5" locking disc box (holds 40)	7.95
64k RAM PACK (DkTronics)	39.95

Individual 3" disc cases
(book style opening)
10 for £5.95
including p & p

Dual Channel RS-232 with software £39.95

The ABBA switch swaps the A and B drives around; the 3rd DRIVE SWITCH allows a 2nd B drive to be connected; the SIDE SWITCH converts inferior drives to Dual-Mode capability.

464/6128 PLUS

Low cost *INTERNAL* disc/memory upgrades

	D.I.Y. kit	Done by us
464 PLUS		
Extra 64k	15.00	25.00
Disc interface*	30.00	40.00
6128 PLUS		
Tape *with remote*	18.00	30.00
(tape recorder not included)		

*** Together with the 3.5" drive, this is the lowest costing 1st drive by *a very* wide margin.**

Please write or phone for details *before* sending your computer.

ROMBO VIDEO DIGITISER

Now only £65.00

Captures video pictures from a video recorder, camera or TV with 'video out' to computer memory. Manipulate pictures, save to disc, use in programs, print out, etc.

ROMONOFF SWITCH - £7.95

Connects to the expansion port to turn all external ROMs OFF or ON as needed. Not suitable for a 464 with disc drive.

MS800 is the number one high capacity formatter, allowing up to 800k storage per 3.5" disc. It is the ONLY one that doesn't need to be present for its discs to be used, the ONLY one that is compatible with all software including CPM, the ONLY one that uses no memory whatsoever, the ONLY one that can use its discs in drive A (ABBA switch users, please note), the ONLY one that works with the Plus machines. It is supplied with its own copying utility and a menu program that allows many tape to disc transferred games to run from drive B. Check these features against any alternative and you'll see why MS800 is simply the best.

MS800 disc or ROM	9.95
MS800 disc and ROM	14.95
ROM for disc owners (proof needed)	5.50

AVATAR

28 BELMONT AVENUE, LOW MOOR, BRADFORD BD12 0PA

MAJOR CREDIT CARDS TAKEN

Phone: 0274 602180 **Monday to Friday**

multiface. BUY NOW! IT'S BYE NOW...

When the **MULTIFACE** was launched in 1986, it was an outright winner. No one has ever come up with such a powerful, useful add-on. Labeled *the* ***ESSENTIAL CPC COMPANION***, this **MULTI**purpose inter**FACE** proved to be an absolute Godsend for the Amstrad CPC users. Remember the first disk drive on the CPC 464? Suddenly the loading took seconds rather than minutes from tapes. Except that there was not much to load - very little had originally been released on disks and there was no facility to transfer programs from tapes to disks.

THE SAVIOUR

This is one area where the **MULTIFACE** saved everything - literally. The black magic box could stop anything any time and **SAVE** it to disk or tape. When the 6128 came with a built-in drive, it was left again to the **MULTIFACE** to do all the transferring - and to perform other miracles...

So, in case you just came from Mars, what does a **MULTIFACE** do? First, it sits at the back of your CPC, its magic button always ready. Press it, and the **MULTIFACE** takes control!

ACTION!

Once in action, it freezes everything and it displays its own menu. Being fully menu-driven and error-trapped, you'll probably never need the full manual that comes with the MULTIFACE. Most operations are also entirely **AUTOMATIC**, so to *SAVE* a game once you stopped it, you just *name* it, insert *disk/tape*, and press a key. You can then *return* and *continue* the program. If you get beaten later on, just reload from where you saved last and play just from there again! No need to go back to the start all the time. Or even better, the **Multiface** allows you to **POKE**

INFINITE LIVES

listed in this magazine and you'll *never* loose. The MULTIFACE comes with a built-in **TOOLKIT** that lets you inspect/alter/dump the CPC RAM. It also has its own 8K RAM and 8K ROM. Many top programs were written with the aid of the TOOLKIT and the extra 8K RAM. And do you like the **screen shots** in this magazine? They are all produced using the **MULTIFACE!**

When we announced earlier that we were to pull out of the 8-bit market, the surge of interest in the **MULTIFACE** was such, that we had to make many more. And not just the MULTIFACE - we also have the one and only disassembler,

THE INSIDER

that lets you ***see*** and ***alter*** what happens any time anywhere inside a ***RUNNING*** CPC program. This is a unique de-bugging/development aid. It comes on a **disk** and loads inside a MULTIFACE. Press the magic button and the **INSIDER** will di-sassemble, find text/code, dump the CPC RAM to printer, etc. Get it at **HALF-PRICE** for **£7.95**! As this goes to press, we still have plenty of stock of both the **MULTIFACE** and **INSIDER**. However we can't go on manufacturing for ever. The **MULTIFACE** is terrific value, in fact more for the *customer* than for the *manufacturer*... So

HURRY!

In any case we will only accept orders when we can supply the goods and we give a *full guarantee*. Plus we still offer up to **£15 OFF! mail orders!**

You MUST NOT use our products to copy, reproduce or infringe in any way whatsoever any copyright material without the permission of the copyright owner. We do neither condone nor authorise the use of our products for the reproduction of copyright material - to do so is ILLEGAL!

All prices are already discounted and apply to Mail Orders to 30/11/93 only.

I order a **MULTIFACE 2** for **CPC 464/6128** ☐ ~~£47.95~~ £34.95 or for **CPC +** ☐ ~~£49.95~~ £34.95
RODOS ☐ ~~£29.95~~ £14.95 **RODOS XTRA** ☐ ~~£9.95~~ £4.95 **INSIDER** ☐ ~~£14.95~~ £7.95

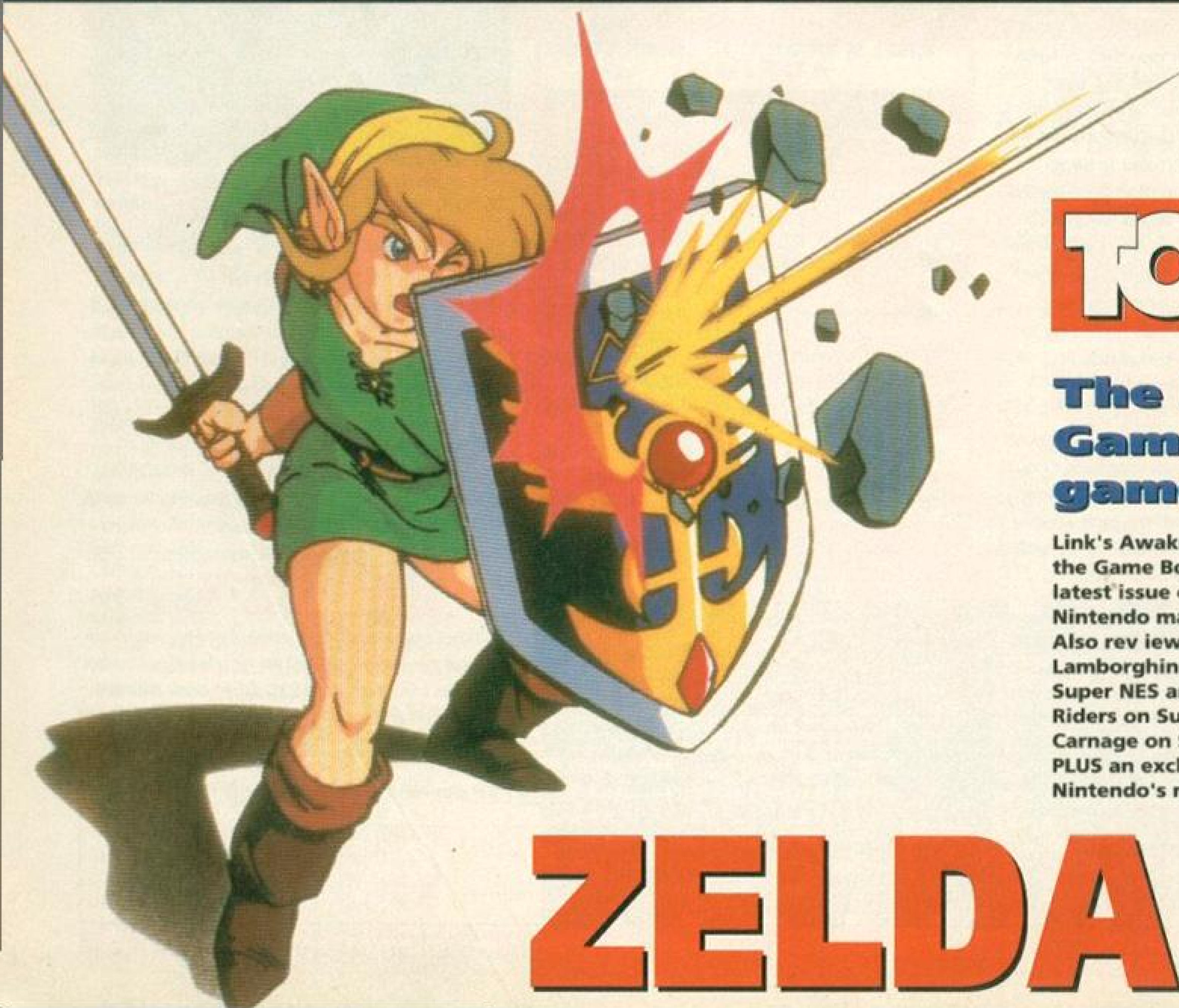
PLUS P&P per item: UK / Europe £2 Overseas £3.

I enclose a **cheque/PO/cash** for £............. or debit my **Access/Visa** No. [| | | | | | | | | | | | | | |] Card Exp............

Name/address..

ROMANTIC ROBOT, 54 Deanscroft Ave, London NW9 8EN ☎ 24 hrs 081-200 8870 ☎ AA


SHE'S GOT IT...
GET YOURS THE FIRST THURSDAY OF EVERY MONTH



Power Up

Welcome to the leisure zone, where AA gets serious about the not-so-serious side of the CPC

These are the reprobates that throw together this mag every month, in other words, us, the AA crew. And it was only a matter of time before we decided to do a 'Cheats' special issue, because none of us are above the odd 'creative interpretation of rules' when the need arises...



DAVE GOLDER, Editor

First memory of cheating Planing the sides off his square brick so it'd fit through the round hole (or filing the hole into shape).
Favourite golfing tactic Subtly stamping his opponent's ball so far into the bunker that they wouldn't be able to shift it with a JCB earth-mover, let alone a sand wedge.
Best advice for cheating in exams Hiding notes on a pieces of paper rolled up and hidden inside your massive collection of biros (just in case one runs out, of course).
Rave of the month *Reeves and Mortimer.*
Rant of the month Being forced to wear that stupid jumper for the photoshoot.

SIMON FORRESTER, Hairy Skivvy



First memory of cheating Playing patience with marked cards and still losing miserably.
Favourite golfing tactic He doesn't actually play a single stroke of golf – he prefers offering his services as a caddy who's quite happy to fix the odd shot or two for the sake of a tidy little back hander.
Best advice for cheating in exams Bribery.
Rave of the month Karen Keating.
Rant of the month Taxi drivers who talk about their kids throughout the whole journey.

ANDY OUNSTED, Art Editor

First memory of cheating Gluing my brother's tiddly-winks to the kitchen table.
Favourite golfing tactic Making sure you have a plentiful supply of identical balls which can be 'strategically' placed when your opponents are looking for the ones you've just conveniently sliced into the deep rough.
Best advice for cheating in exams Getting the person who's sitting in front of you to wear a T-shirt you've printed up with all the answers on the back (in code, of course). *(Isn't that just a tad convoluted? – Dave.)*
Rant of the month The rain.
Rave of the month The bits when it didn't rain.





This month's (photo) shoot was conducted by Sarah 'M Appeal' Tanser.

AA Trump Cards # 1

For you to cut out, collect and, maybe one day in the far-flung future, even play a game with.

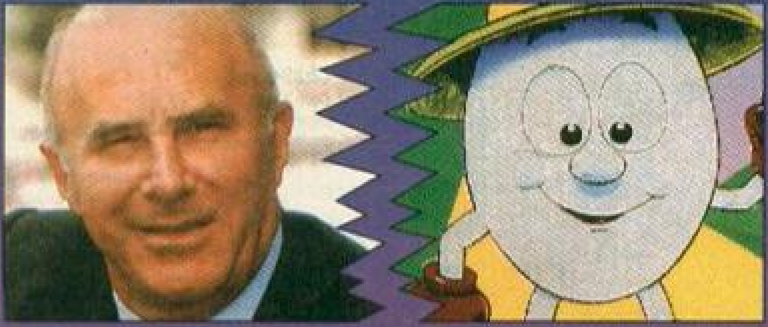
Seymour

Codemasters



- Cloying cuteness factor 9
- Appearances ...2 (many but at least 5)
- Hardness..1
- Street Cred....................................-27
- Quality of games...............................6
- Resemblance to a deckchair 0
- Overall AA totally biased rating 2

Separated at birth?



Clive James — Dizzy

Do you reckon any famous types are dead ringers for games characters? Or perhaps you've got a mate who looks like a CPC star? If so, then send your suggestions and/or photos along to us here at Separated At Birth, *Amstrad Action*, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW.

Reaction

Send your letters to: Reaction, Amstrad Action, 30 Monmouth Street, Bath BA1 2BW

Fire and brimstone

Prophets of doom, listen to me. You harp on about the demise of the CPC scene as though it was foretold in the old testament.

The good old 664 has had this rough treatment since the very first issue of this hallowed magazine, and yet people are still using, nay, enjoying this versatile piece of machinery no less than eight years later.



I am sick of doombrokers who have nothing better to do than whinge about one software house or another backing out of the CPC market. Don't just sit there, do something. There may be less and less coming from the softies but all you need to do is look across the Channel to the European PD scene. It is starting to blossom. People are learning, they are seeing, they are doing, they are learning. I'm not a know-it-all. I'm just sat here watching, seeing, learning.



I believe software houses are only bowing out because they've seen the PD challenge growing and are merely saving their own skins. I may be wrong, but have a look anyway. It won't hurt and you'll probably learn.



Remember these word

The software houses do not dictate to the buyer. They've got it all the wrong way around (much as AM Sugar and Roland Perry did).



Linden C Gill, no fixed abode (apparently)

PS I do not own, nor do I have any connections with a PD library.

While I loathe generalisations, there is one about the British which rings true – we have a reluctance to get involved with Europe. We whinged when we joined the Common Market, ERM had us fuming and any mention of a unified European currency has us spouting speeches about long and honourable traditions. Which is a shame, because we miss out on a lot this way (*yeah, like that seminal punk-glam beat combo from Germany, Die Toten Hosen – Andy*).

But here at *AA* we're not going to make this mistake. The European CPC scene is very active, and we've got plans underway to make sure we keep you touch with what's going on. **Dave**

Poster poser

Why doesn't your ace new art editor, Andy, do a poster for the best game you review every month and for the techy bods a big copy of the technical project on the other side so they can see what to do more easily and you've more space for explanations (a bit like *Sega* spit! *Power* spit!).

Graham Entwhistle, Manchester.

Andy O would love to do a poster, basically because they're so easy to do and he's a lazy... (*oi! – Andy*) er, seriously overworked Art Editor. But Simon and I reckon that what most of you lot want is a magazine packed full of good, solid info on the CPC and lots of it, and so devoting two of our precious pages to one picture seems rather gratuitous. But we could be wrong, and if we get an avalanche of mail pleading for us to stick posters in the magazine... well, we're here to please. **Dave**

EXPOSED!



SAUCY SUE AND THE BULGING BARBARIAN

Nope, I really don't think centrefolds are quite our style. And anyway, it looks more like something out of Kerrang! or Metal Hammer.

Coming soon

1 Please, please, please could you put the following on the covertape?

- ***Elite***
- ***Laser Squad***
- **A decent Assembler**

2 I enjoyed *Tasword* and *Instant Recall* very much.

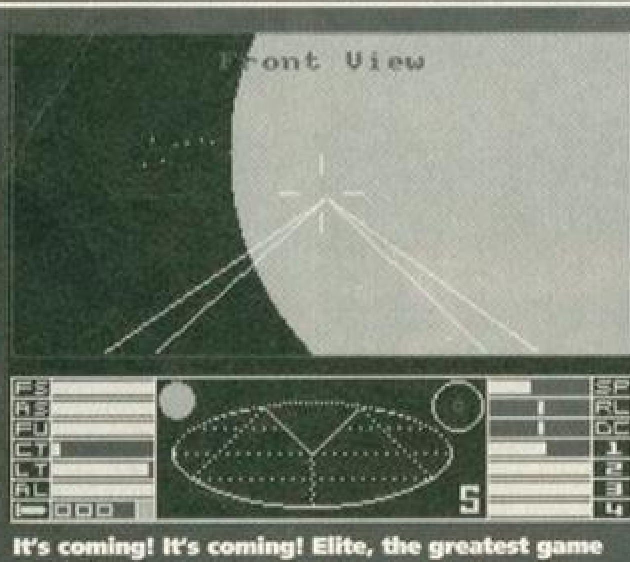
3 What are RODOS and RODOS Xtra (advertised with the Multiface)?

Shabaz Hamid, Cardiff.

1 Wanna hear some good news? Well two out of three ain't bad.

- Yes, and very, very soon.
- Not in the near future, but you never know your luck.
- We already have. Check out *Zapp Assembler* on last issue's tape.

2 What can we say but Vegetarian Pot Noodles? Thanks, I suppose.



It's coming! It's coming! Elite, the greatest game of all time and you're going to get it free with issue 100. Don't say we never do anything for you,

3 They are a couple of frankly rather nob operating systems, according to Simon, who knows about these things. The Hairy one's advice is, 'Don't bother.' **Dave**

The things people do

To be quite honest, I've had my trusty CPC6128 for several years and still haven't really explored its potential. Bought the odd mags every now and then (when there was a choice) but all this computer jargon leaves me a bit befuddled. Buying a recent copy of *AA* has revived my interest (I wanted the spreadsheet on the covertape).

The ROM feature in *AA96* caught my eye and I wonder why more software manufacturers don't give the option of a ROM chip version of their particular creations. Virtual instant access to a package, plus the extra memory available gives something like *Protext* on ROM a distinct advantage over disk. It's worth the purchase of a ROM board just for this word processing packaging alone, in my opinion.

An idea for future issues of *AA* might be some input from your readers about the more unusual uses they have found for their CPCs. For instance, my wife Betty runs knitting machine patterns tailored (no pun intended) for the CPC by Terry Mason.
David Noakes, Rochester, Kent

Well, I reckon Simon's found the most unusual use of a CPC ever, but a pending lawsuit from a satellite TV station in Denmark forbids me from telling you what it is. If anyone's got a legit, weirdo use for their Amstrad, let us know. **Dave**

Console-ation

I have read your magazine for several years and as well as using a 464 I own a Master System. Recently, though, I have been rather offended by comments in your otherwise excellent magazine. The comments have been directed towards console owners such as myself and have been along the lines of, "Console owners are game-playing morons," and, "Console owners are traitors to the CPC cause."

Admittedly, I use my console to play games, but I use my Amstrad for much more, for both games and business programs. I think it is rather unfair to assume that just because I own a console I am unable to use serious programs and I only play games.

The facts stated above should prove that I am not a traitor. I use my Amstrad for more than my Sega machine. Every two weeks (or there abouts) I buy a new budget game or send off for some PD. The other week I bought a printer for my Amstrad.

Surely me playing games on my Sega is just the same as somebody playing a game on an Amstrad or am I just being over-cynical?

And it occurs to me that most of the people who comment on consoles have never even played a game on one. Or is that cynicism as well?

The fact that a console is useless for serious applications will, I'm sure, keep many, including myself, faithful to the Amstrad for a very long time to come.
Chris Spicer, Nuneaton

Wanna know a secret? Right well, Ex-*AA* Ed Rod Lawton owns a MegaDrive, Ex-*AA* Ed Tim Norris now edits a Sega mag and I've got a SNES tucked away at home, all as well as our CPCs. What a bunch of hypocrites, eh? But I have a dream, of CPCs and consoles living together in harmony... Okay, I admit it, we are a bit unfair on poor old console owners occasionally, but let's face it, consoles are little more than expensive toys which are infinitely inferior to the CPC in many ways. We just don't want people to forget that. **Dave**

Metal-head missive

I am an avid reader of *Amstrad Action* and I find it a totally sorted read every month. Can I ask you some questions? (*I think you'll find you already have – Dave.*)

1 When I compose music using *BooTracker* (from the *AA92* covertape) is the compiled code copyrighted? If so, who to?

2 Do you know when are the following games coming out on the CPC?

Street Fighter 2
Dizzy 8
Mortal Kombat
Metallica, the computer game
Any decent *Tetris* clone (not *Drehdriss*!)



Simon loves Pushead's artwork, but why did they stop using him?

3 I've never missed an *Amstrad Action* covertape. Do I get any prizes?

4 I've sent you a Metallica postcard. Hope you like it.

5 I can't load *Addams Family* on my 464. It comes with a message saying that I need 128K. Can you help?

6 I think that a decent prize for having all your covertapes would be *Dizzy 5*. I can't find it anywhere in Coventry. Or *Dizzy 6*.

7 Can't you do anything more original in your otherwise excellent Machine Code tutorials?

8 Why not print posters?

Congratulations on eight years of sorted print and burn all rave tapes and CDs and listen to Metallica.
Simon Day, Coventry.

1 No. Er, actually that's not entirely true, but you are allowed to copy it.
2 *Street Fighter 2* – check out Amscene on page six for some exciting developments.
Dizzy 8 – Never hopefully.
Mortal Kombat – you are kidding?
Metallica, The Computer Game – Yep, I reckon you must be kidding.
Any *Tetris* clone – I'd keep your eye on our Public Image pages if I were you. There are always plenty of *Tetris* clones in the Public Domain.
3 What more could you want?
4 Er... I'll only answer that in the presence of my lawyer. Simon says yes and no. He would.
5 Yes. Get 128K.
6 Are you a masochist?
7 Is that a backhanded compliment or what? Anyway, the answer's yes. We could.
8 We've already been through this one this month. Maybe, perhaps, we'll see. **Dave**

Chartwatch

After buying issue 96 of *Amstrad Action* I decided to read it (*what a revolutionary idea – Dave*). I spotted the Kixx compo and read the reviews on the games only to discover that the rating for *Acrojet* was missing. I guess it was about 75 per cent, but who knows?

Just for the sake of it I have included a chart of my favourite games (actually, at this point in the letter the word 'diseases' was curiously crossed out to be replaced by 'games' – Dave).

1 *Sim City*
2 *Combat Lynx*
3 *3D Construction Kit*
4 *Mission Omega*
5 *Space Crusade*
6 *The Boggitt*
7 *3D Starfighter*
8 *Rick Dangerous 2*
9 *Klax*
10 *Dark Sceptre*

Simon Crabtree, North Allerton.

The rating for *Acrojet* before it was swallowed by the printers was actually 68 per cent so you weren't far off. Thanks for the Top 10 by the way. How about some more from the rest of you lot? They're always good for a bit of controversy. **Dave**

Name that tune

Regarding a letter in *AA95* from Jonathan Brunhead about a music program where you enter notes as musical notes and not numbers, the Rainbird software company (which now does not exist) made two products: *The Music System* and *The Advanced Music System* both of which use musical staves to enter notes. Perhaps he could obtain one second hand?
David Fraser, Cheltenham.

Anybody out there with an unwanted copy of either *The Music System* or *Advanced Music System* that you could pass on to Jonathan? You know where to write (hint – *Amstrad Action*, okay?). **Dave**



Off her trolley

I want to warn you that you may be receiving some correspondence from my husband. His handwriting is tall, dark and handsome and will contain reference to all my hours of sweating over programs. However, the

reference will not be in praise of my hard work but will be disguised under his false claim to fame by sending in a listing for Type-In under his own monicker.

After a great deal of thought I believe I can hide any future work from my husband without resorting to digging six-foot holes in the back garden. I once worked for a chain store where the cashiers had to remember all of the prices of each article in the shop (approx 900) revising the price changes every Monday. The point is it has occurred to me that Machine Code programming should be a doddle as I can file all future programs I am working on into the most secret file of all and call them at will. This being, in my head, therefore ending all idea-stealing as you-know-who eats garlic and carves wooden crosses when he stumbles over Machine Code.

Now I arrive at the stumbling block – how can I post my head to your Type-Ins without Hubby noticing that it's missing?

If you have found this letter hard to follow then you have found the solution to the puzzle – why is there an apparent shortage of female programmers? The answer is, you just don't understand us.
Ann Wilson, Co Durham.

Nope, I understood your letter completely. You want to decapitate yourself to stop your husband from nicking your ideas. Perfectly logical. Apart from the fact that we haven't got the right leads to connect your head to our CPCs (I could be wrong here, but I don't think CPC/neural network null modem cables have been invented yet). **Dave**

Transference of guilt

In reference to your September covertape. You glibly inform us that we are unable to transfer *Screen Designer* to disk and that if we want one we must send £2 to Ablex. What you seem to be doing is in effect levying a surcharge on those of us who prefer to work from disk. Either that, or you are getting sloppy and are unable to get your technical act together to get the product right for publication day. Whatever the reason your value for money index is slipping since this is making the magazine £4.95 instead of £2.95 which does seem to me a touch excessive.
David J Roots, Warwickshire



Screen Designer, available in glorious tape-o-vision.

I'm sorry you think we're penalising disk owners but believe me that is not the case. The tape-to-disk program is an extra which we put on the covertape when we can but it does not work with all programs. To write specific transfer software for these programs would take time, money and tape space that we cannot afford. It would also mean that we would have to raise the price of the magazine; this would be penalising tape-users which seems a lot more unfair.

It has never been AA policy to put a transfer program on the tape; we have when it has been possible. But the the package you buy when you hand your money over for AA includes a tape not a disk. So to say that the magazine costs £4.95 is simply not true. **Dave**

Getting in print

I'm enjoying the September covertape, especially *Screen Designer*. You can get some pretty crazy designs out of it, but I was thinking, and this is usually a dangerous thing in my case – it's best to hide all sharp objects and turn off the mains – how good it would be if you could print out all those creations and have hard copies lying all over the place, sticking to the bottom of your shoes, etc.

I'll tell you what, I'll be glad when I get my copy of *Tasword* (*AA*91 covertape) back. Unfortunately it was ill and I'm waiting for a replacement. This is being written with *Instant Recall* (*AA*94 covertape). I mean. Come on. It's just not ethical writing letters on a database, is it? Mind you it does the job and shows the versatility of the thing.
PJ Mackman, Peterborough.

Screen Designer was written primarily to be used as a package for creating artwork for use in other programs, such as games, which is why there is no in-built print facility – shame. But there are ways to get print-outs, by using a screen dump program. You can find these in most PD libraries. And there is that possibility that we may have one on our new-style covertape next month. **Dave**

The bottom line

Re: issue 97. Here are the answers:
Page 4: No, javelin.
Page 6: Because they're furry animals with red backsides.
Page 8: False, he was aboard the Bounty.
Page 9: Yes.
Page 11: Tightly.
Page 13: Tomorrow.
Page 15: Black.
Page 16: God?
Page 20: Blow in...
Page 21: ... it's ear.
Page 22: Who is anyone?
Page 24: See above.
Page 25: Arnold.
Page 26: &1RON
Page 27: *My Father Is A Bunger Up Of Rat-Holes* (it really is a song title).
Page 28: Depends how much they've drunk.
Page 31: Only when its legs were pulled off and placed 5.5-inches either side of its body.
Page 36: Bill and Ben.
Page 37: The one after the eleventh?
Page 38: They've moved?
Page 39: Only if it gets up enough speed going downhill.
Page 40: Dead.
Page 44: Nuts and bolts.
Page 45: His Mum and Dad.
Page 46: Because you can't get it.
Page 49: Kit Kat.
Page 50: Because you can't eat them.
Page 51: No, it was in a steam roller.
Page 52: Bambi.
Page 54: I prefer Party Political Broadcasts.
Page 55: Cannos.
Page 58: Dinner at the Ritz.
Many thanks for a great mag.
C Osborne, Llandrindod, Wales

And if you don't know what that was all about order issue 97 from Back Issues (see page 25) right now. **Dave**

Poets' corner

Could you help me? I am starting a PD
library (tape only). My set up is like this:
My Library's PD,
And catalogues are free,
No pricey games nonsense,
My games are only 10p,
Or even less,
That's PDness.

Need a cheat?
I'll be hard to beat,
No need to be concerned,
Your tapes will be returned,
In less than a week,
The truth I speak.



If you have PD,
Send it to me,
Get hopping,
We'll do some swapping,
I may not be the best,
But there's a free contest.
A ticket you'll be sent,
For every £1 you've spent,
It's a monthly draw,
With prizes galore,

Well, that'll have to do,
It's over to you,
If you like what you see,
Get in touch with me.
John Jones, Northumberland



The strange thing is that you can sing this poem to the tune of *Faces* by 2-Unlimited. In fact, you can sing it along to any song by 2-Unlimited song. Heck, you can sing anything along to anything by 2-Unlimited. **Dave**

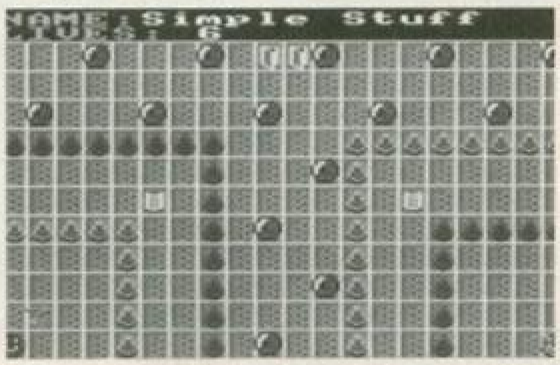
Public Image

It's strange, y'know, this Public Domain lark. People write games and utilities then distribute them and expect no financial reimbursement. But who's complaining? Dave Golder and Tim Blackbond certainly aren't.

The Smiley Affair

By Malcolm Dowse, Alex and James. Available from Amsof. Cat No. APG 18.

Don't panic! This has nothing to do with turgidly long, slow-moving, worthy-but-dull and completely incomprehensible BBC spy series. A game that was really based on a John Le Carré story would have to be a strategy affair in which your enemies change sides every few moves, you haven't got a clue what character you're playing or what the point of the game is and would probably take you around three and a half years to complete.

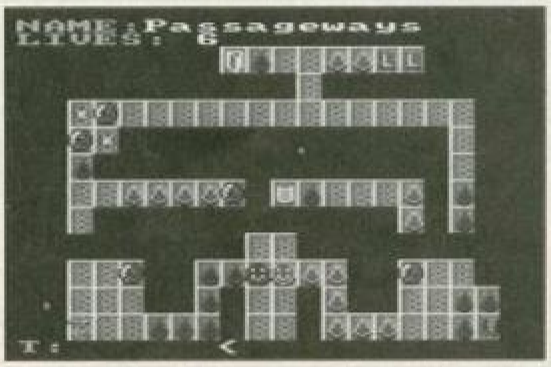


The Smiley Affair is a two-player game in which – gasp – you need to co-operate.

The Smiley Affair, on the other hand, is a fast-moving, two-player puzzle game, that you'll probably master in couple of hours of intensive play. But believe me, those couple of hours will be a great deal of fun.

The game features 83 maze-like levels, the aim in each being for both players to reach the exit before the time runs out. It ain't a race because you actually have to help each other; co-operation is the key to success here. In fact, most of the fun comes from the ridiculous arguments that ensue when one of you makes a mistake during a frantic rush to an exit, and both of you end up dead.

There are loads of different pick-ups – such as bombs, magnets and shields – and life-

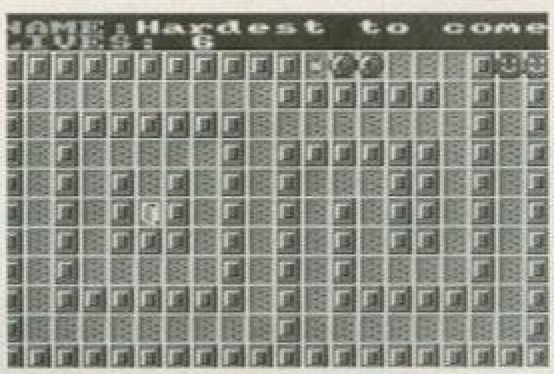


The exit that both your Smileys need to reach is the thing at the top of the screen that looks like a large red book.

threatening tiles that complicate matters and keep the game interesting. There is a slight element of competition in that there's money you can collect for points, but usually you're concentrating more on simply getting the hell out of there. The level code system is a handy extra.

Sure, it's not exactly the most challenging game ever and you'll be romping through the levels at lightening pace, but the co-operative two-player mode is a novel twist, the graphics are clear and colourful and there's enough variation in the puzzles to keep the gameplay fresh. It's well worth checking out. **Dave**

83%



Some things in life are tricky. Some things are easy. The Smiley Affair is moderately tricky in a one step above not quite very easy sort of way, if you get my drift.

Mailbag

Gettin' better all the time

Being an ex-subscriber to *Presto News*, I was more than a little bit upset when the magazine closed down. But things seemed to cheer up a little when I heard of the forthcoming diskzine *Better Than Life*. Would anybody mind if I asked when it is actually due for release and how much it will cost?
Bob Cooper, Appletreewick

Better Than Life is actually very near completion. The main code for the disk-system has been perfected by a certain Mr Richard Fairhurst and so far it's looking extremely good. As for the articles, about 81K of text has been written along with another 80K left to go. Price? It'll be public domain, so don't expect to pay much. **Tim**

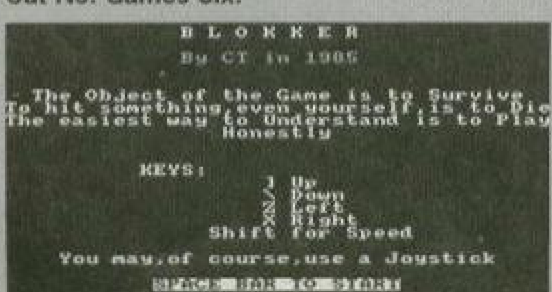
Newcomer's corner

I have only very recently started being interested in public domain (I have to confess, I used to skip past these pages in search of the games reviews – please forgive me) and the idea of it interests me. I have just a couple of questions to ask:
1 I have been told that once purchased, you are free to copy public domain programs and distribute them to you heart's content? Is this true?
2 Being a bit of a games fan (I don't like serious stuff much), could you advise me which are the best games available in the public domain?
Thomas McElveen, Essex.

The answers to your questions:
1 Indeed it is true. If you are really keen, you could take the free-to-copy idea to the very extreme and start your own PD library.
2 More and more good games are coming into the public domain these days. For example, *Puzznix*, *Forcefield* (debugged edition), *Atomic Demo*, *Spots*, *Axys* and *Power Tetris* are just a few (*personally, I'd recommend* Croco Magneto – *Simon*). Every one of those games should be available from most PD outlets. **Tim**

Blokker

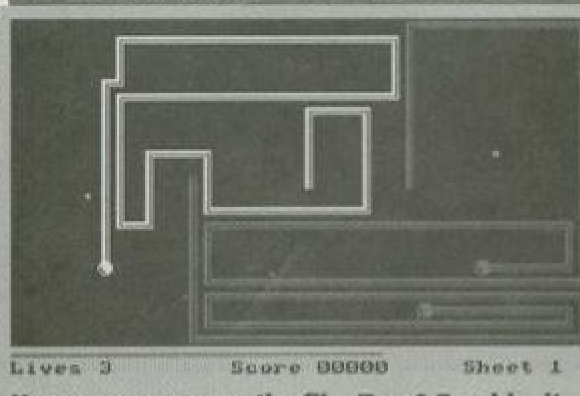
By CJ, available from Presto PD. Cat No. Games Six.



A picture paints a thousand words. Actually it's only a couple of dozen in this case.

Blokker is simple. It's the usual *Tron*-influenced, speed-around-on-a-light-cycle-in-an-attempt-to-make-your-opponent-crash-into-your-trail type thing. The best bit about this game is that it's been designed with the single player in mind, so instead of having a really slow and easy-to-beat opponent (ie, a mate who's as rubbish at the game as you are), you come up against ever more psychotic speed demons intent on *crushing every bone in your body. If this is* what's known as terribly good fun, my name is Flibberty Gibbets. *(Hi, Flib, how're you doin' – Simon.)* **Tim**

75%



Have you ever seen the film Tron? Frankly, it hasn't dated very well. But the light cycle sequence is still pretty impressive.

A-Z Encyclopaedia Volume 1:

Or, in other words, (not quite) everything you ever wanted to know about the Amstrad CPC. With issue 100 looming in the way that only something very near can loom, we reckoned it was about time we took an in-depth, serious look at the CPC from a sociological, psychological, political and historical viewpoint. But somehow it ended up as this three-part series...

A

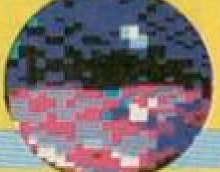
Accumulator The main register in Z80 Machine Code in which most of the numerical operations are performed. It's normally abbreviated to A (*trust the first entry to be as dull as dung beetles – Dave*). **Simon**

Address Each number in the CPC's 64K (or 128K) is pointed to by an address. The highest attainable address is 65535, or &FFFF in hexadecimal. **Simon**



Amazing graphics like these are easy (well easy-ish) on a 128K machine if you're armed with the excellent Advanced Art Studio.

Advanced Art Studio Probably the best art package available for the CPC. Unfortunately, it's only compatible with 128K machines, and believe me, 64K users really are missing out. **Simon**





Adventures Hail, merry Encyclopaedia browsers. Forsooth, stay a while and ponder upon that most worthy category of games known as Adventures, half brother of graphic adventures, second cousin removed on its mother's side to RPGs and Lord of all that shoot-'em-up fans do despise. For verily, adventures are more cerebral, and often feature no graphics at all. The player is placed within a situation (which invariably feature Elves, Goblins, Orcs and other Tolkien-inspired characters) and they have to type in commands telling the program what they want to do and where they want to go using a system called a parser (a bad parser, by the way, is one of the most infuriating things in the computer world and has led to more irreparable keyboard damage as the result of contact with fast-moving fists than any other cause). See *Guild Of Thieves*. **Dave**

Amstrad Action In autumn 1985, a revolution in publishing hit the newsagents' shelves. Eight years and almost three million

AMSTRAD ACTION FAB 1

copies sold later and *Amstrad Action* is still going strong, with no end in sight. Having beaten off all rivals, introduced the concept of covermounted software to the world and survived almost four years under the editorship of Rod 'The Beard' Lawton, *Amstrad Action* – quite simply the best CPC magazine that has ever, and, indeed could ever have, existed – is about to reach issue 100. How many of these mere whipper-snapper console mags'll make it half that far? **Dave**

CLASSIC GAME

Antiriad The first (and as far as we know only) game to feature a completely naked bloke. Why does this warrant a mention? Well, think about it – we see plenty of games with scantily (if at all) clad women, so why not more men? I'm right on, me. **Simon**

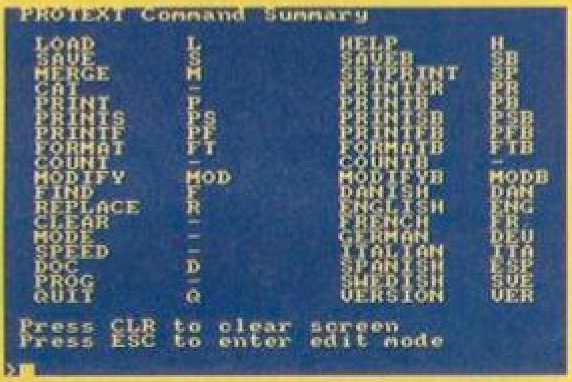


Striking a blow for sexual equality, Antiriad was the first game to feature a nude man.

Amstrad Alan Sugar's company. It's actually an acronym for Alan Michael Sugar TRADing, and started with Sugar himself selling hi-fi lids at car boot sales. It's since progressed to selling the whole hi-fi, presumably to the people who'd already bought the lid and wanted to complete the set. **Simon**

Animation A technique of making things appear as if they're moving. Sorry, that should read 'two techniques' when it comes to the CPC. The first is to display a set of pictures (sprites) rapidly in succession, and the other is to draw every frame on screen in a different ink, turning the inks on and off. **Simon**

Arnor Creators of such wonderful utilities as *Maxam*, *Protext* (and subsequently *Prospell*, *Promerge*, etc). The odds are you won't be able to contact them directly these days, but a vigilant eye on the small ads pages should turn something up. **Simon**



If it starts with 'Pro' and it's a serious slice of software it probably comes from Arnor.

ASCII (American Standard Code for Information Interchange) Every character on your keyboard is represented by a number. This number is the character's ASCII code. For example, &4D is upper case M. **Simon**

Assembly The language that an Assembler would turn directly into Z80 Machine Code. See the ongoing Assembly Line feature for an example of Assembly language. **Simon**

B

Background ROM The standard kind of add-on chip you can buy for your CPC. Usually, they have stuff on them, such as ROMDOS, S/DOS, *Protext*, *Maxam*, *Xexor* and other such things. You'll need a ROMboard to use one, though, which plugs into your expansion port. **Simon**

Back-up Always, always, always make back-ups of your programs. Software corrupts, it's a fact of life. **Simon**



Balrog The strange creature who wrote *AA*'s adventure column for many years. I told you these adventure folks loved all that Tolkien stuff. **Dave**.

BASIC Now, things must be really confusing if you're reading this bit – BASIC is the language and environment that appears as soon as you

edia Amstradica

Binary Computers, deep down, can only deal with two numbers; 1 and 0. They represent whether or not there is a current going through a circuit. 1 means there is a current, 0 means there isn't. But how can large numbers be represented this way? Using binary that's how. Using just eight of these on/off circuits you can represent any number up to 255. Here's how:

128	64	32	16	8	4	2	1
1	1	1	1	1	1	1	1

Right, each bit (circuit) within a byte represents a number, like in the top row above. In this example all the bits are on, so if you add up all the numbers you get 255. Freak. However if, say, the bits representing 16 and 4 were off, giving the binary figure 11101011, the decimal equivalent would be 235.

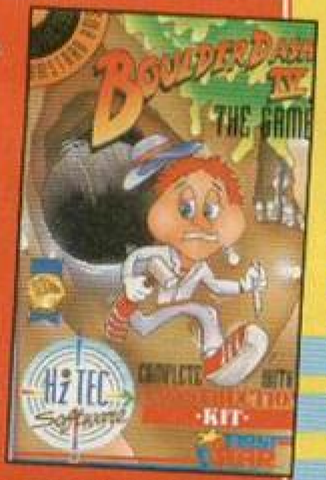
Any number from 0 to 255 can be represented with just eight binary digits. (*Oi! You've just copied my explanation from last month's Assembly Line. Cheat – Simon.*) **Dave**

turn your CPC on. All our Type-Ins are in BASIC, as are commands like RUN. **Simon**

Beat-'Em-Ups There are two types of beat-'em-ups; the one-to-one slogs, like *Street Fighter* and the *WWF* games, and the horizontally-scrolling, pulverise-everything-that-appears-on-screen affairs like *Teenage Mutant Ninja Turtles*. Neither of them are particularly liked by the sort of people who reckon video games affect the nation's youth. Violence without pain, they say. They've obviously never played *WWF: European Rampage*. I had blisters the size of a pot-bellied pig for weeks after I gave that a go. One of the best beat-'em-ups ever was *Target Renegade*; will *SF2* be better? **Dave**.

CLASSIC GAME

Bouldercash Ever played *Lost Caves* by ex-*AA* writer Adam Waring? If so, you might like to know that it was getting on for being an almost direct rip-off of *Boulderdash* (the original boulders game). The world saw *Boulderdash 5* before the saga, which incuded a level designer in number four ended, concluded. When it comes to game concepts, this defined the genre originated by *Repton* (which ran on the BBC micro). **Simon**



Bit See Binary; Byte. **Simon**

Bug A fault in a program, sometimes annoying, often fatal. They must be eradicated. **Dave**

Burnin' Rubber When you power up a CPC Plus, nothing much happens unless you've got a cart stuck in the side of it. Rather handily the plus came supplied with a cart which contained both Locomotive BASIC and a freebie game, *Burnin' Rubber*. Even more curious was the fact that the game was a driving game that was actually really quite good. **Dave**



Burnin' Rubber was a freebie game that came on the same cart as the BASIC chip that all Plus owners had to have.

Bus A theoretical object in computer programming. It's actually a data pathway from one device to another. **Simon**

Byte A number from 0 to 255, built up of eight bits (a bit being a 1 or a 0). **Simon**

C

Cartridge A form of software which plugged straight in to a Plus or a GX4000 which meant almost instant loading. The cartridge contained the Basic ROM that normally sat inside the CPC (so if you wanted to use Basic on a Plus you had to load it up from a cartridge). Strangely, the format never really took off, which is a shame; reviewing games from carts is a darned sight less hassle for us. **Dave**.

Cassette Aaaaaarggghhhhh! They take ages to load. They never load first time (in fact, in controlled experiments, it has been proven that the third attempt is, on average, the most successful attempt). The multiload nightmare is one of the worst tortures ever inflicted on the human race. Why didn't you all buy disk drives or Plusses when you had the chance? Nah, we love 'em really. **Dave**.

Carey We'll own up. The only reason we're mentioning this ex-editor (*AA*34-50) is so that we can re-run this classic Christmas cover. Fab, isn't it? (Ow, I bit my tongue!) **Dave**



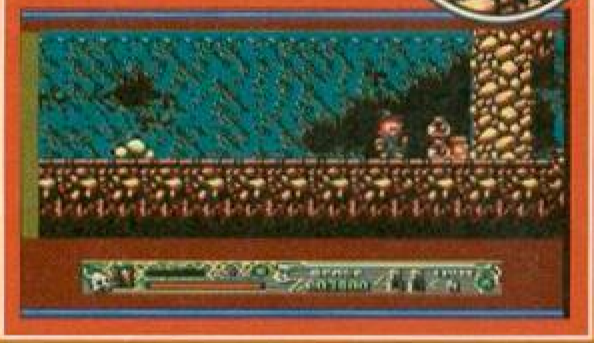
Cecco, Rafaelle Author of such masterpieces as *Cybernoid 1* and *2*, *Stormlord*, *Deliverance* and *Exolon* among others. Funnily enough, it's these exact same titles we've bagged for covertapes in the very near future. **Simon**

Chip "A sliver of silicon upon which a microelectronic circuit is printed or etched." – *Chambers Making Sense of English in Computers*. "The source of more dire computer jokes than any other pun-able word, like Byte. Worse offence: 'Fission Chips', as used in numerous early 80s BBC sit coms." – **Dave**.

CLASSIC GAME

Cauldron 3 The highest mark *AA* has ever given – a massive 96 per cent – was jointly awarded to *Cauldron 3* and *Prehistorik* in subsequent issues (*AA*93 and *AA*94). **Dave**.





Cobol Hang on. How come I'm explaining this one? This is Simon tech-head Forrester's territory. Ah, I see. The hairy one reckons it might be funny seeing me try and explain something more serious than a shoot-'em-up. Well, yah boo sucks 'cause I happen to know that Cobol is an acronym for Common Business-Oriented Language and is used mainly in for complex data-processing. (*You looked that up – Simon.*) **Dave**

CLASSIC GAME

Chuckie Egg For many people (and I'm nearly one of them), this is one of the best computer games ever. The concept was simple – a blokey running round platforms collecting eggs, avoiding geese and using ladders. Fun, fun and, indeed, fun. **Simon**



Compiler When you run a BASIC program, the commands you type are converted into little Machine Code routines. This process is carried out while the program is running, so things get a little slow. A compiler converts a whole program into Machine Code, so that a program can be run without the time problem that occurs with an interpreter. **Simon**

Covertape *Amstrad Action* was the first mag anywhere in the known universe (well, the UK at least) to stick software on the cover. On ➡

A-Z Encyclopae



our Christmas 1985 (*AA4*) we gave away the games *Kung Fu* and *Number One* as special Chrissy presents for our readers. The covertape became a regular item with issue 67, but we gave away others at irregular intervals in between. **Dave**

Count Duckula 2 This was probably the worst game ever on the CPC, though with a mark of three per cent strangely it didn't receive the lowest mark we've ever given (see *Fruit Machine Simulator*). It really has absolutely nothing going for it, apart from the fact that it's available on cassette and so you might not be able to load in the first place (see cassette). **Dave**



Crash Something that CPC programs do a lot. We have compiled the *AA* league of worst offenders:

1 CPM
2 ROMDOS Excel – The original version before it was updated.
3 Anything Simon writes
4 Most games when you've got a Multiface connected to your CPC
5 Any French demo running on a Plus.

D

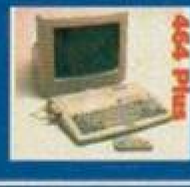
Darling, David and Richard Teenage founders of CodeMasters. Their most memorable TV appearance saw them already distressingly wealthy, with one of 'em (these Darlings all look the same to me) coping with a still-breaking voice! **Simon**





CPC Right. There are six models in total. The first three are the 464, the 664, and the 6128. The easy way to work it out is that the first number stands for the storage system (a 4 meaning tape and a 6 meaning disk), and the rest indicate the amount of memory on the machine. Next up came the GX4000, which was a cart machine (destined to end up being sold on market stalls for a fiver a shot). Finally, we had the 464 Plus and the 6128 Plus, which were 464s and 6128s with GX4000s strapped to them. History fans might like to know that the 464 and 664 were released in 1984, the 6128 in 1985 with the Plus and GX4000 models following in 1990. **Simon**





CLASSIC GAME



Dizzy Probably the unlikeliest hero of all time, and one of the most enduringly popular characters on 8-bit computers., CodeMasters' *Dizzy*, nick-named Mr Easy-To-Draw by, er, just about everybody actually, was the brainchild of the Oliver Twins, who also unleashed *Seymour* on to a unsuspecting world. Basically an egg in boxing gloves, *Dizzy* has appeared in no less than 12 games, seven of them being indistinguishable... er, sorry, I mean adventures. The others were an assortment of odd arcade things ranging from a *Pacman* clone to the universally derided *Klax*-inspired *Panic Dizzy*. A number of supporting characters, such as Grand Dizzy, Daisy and Denzil, each one slightly less easy to draw than the last, have appeared over the years. **Dave**

The Dizzography (adventures in yellow): *Dizzy* • *Treasure Island Dizzy* • *Fast Food Dizzy* • *Fantasy World Dizzy* • *Kwik Snax* • *Magic Land Dizzy* • *Panic Dizzy* • *Spellbound Dizzy* • *Dizzy Prince of the Yolk Folk* • *Dizzy Down The Rapids* • *Bubble Dizzy* • *Crystal Kingdom Dizzy* (please, no more – Simon).

Data The technical-sounding, computer-jargony word for information. **Simon**

Database Basically a software filing system. You throw it a load of information in any old order and it throws it back at you in a more organised, and easy-to-access way. Generally used for address books, mailing lists, sports results and cookbooks. **Dave**

Desktop Publishing (DTP) Software which enables you to layout a printed page using boxes, columns, a variety fonts and letter sizes and pictures to produce magazines, posters, cassette covers, etc. **Dave**

Disk £3 for a disk! Can you believe that? (By the way, we prefer to spell it disk rather than disc, just because we can, okay?) **Simon**

DMP Amstrad's range of printers that sold well until everyone realised they were naff. **Simon**

CLASSIC GAME

Elite Oh my God! It's the game! When you get this with issue 100, you'll possess the best game ever. In fact, you should convince all your friends to buy it, whether they own a CPC or not – everyone must own a copy of this game! **Simon**



E

Editor Someone who sits around with his feet up all day. **Simon** (*You're fired – Dave.*) Oh yeah and they fire people. **Simon**

EPROM A chip. See the entry for background ROMs. EPROM, incidentally, stands for Erasable Programmable Read Only Memory. **Simon**

Epson A printer manufacturer (yawn). **Simon**

Error If Simon starts banging his head on his desk we know that he's encountered one of these little gems in some program he's written. Strangely he has a permanent bruise on his head. **Dave**

F

Flops Remember the GX4000 (you should do, we rag it enough)? You can now pick them up a local markets around the country for a fiver. This defines flop as far as I'm concerned. **Simon**



Fanzine A small home-made magazine produced by enthusiasts. In fact, we've just featured one in Amscene this month, so check it out. **Simon**

Flight Sims With the possible exception of management sims, flight sims are the most inscrutable form of games. You need to memorise keyboard-loads of controls and be ready to endure hours of nothing much happening. But loads of people love 'em, and reckon that games like *Gunship* are the bees knees when it comes to aeronautic endeavours. **Dave**



Fact: over 70 per cent of Flight sims start with the letter F.

Font Printed letters come in loads of different styles; ie, compare what you're reading now to

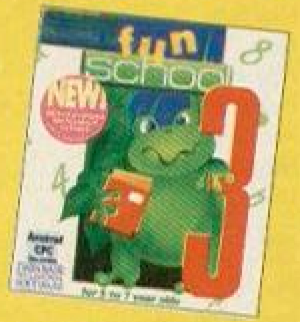
edia Amstradica

the typeface used for listings. Each style of lettering is known as a font. **Dave**

Format Being the layout of a disk. The main two you'll come into contact with are data format, allowing 178K to be stored, and system format (used mainly by CP/M), allowing 169K to be stored. **Simon**

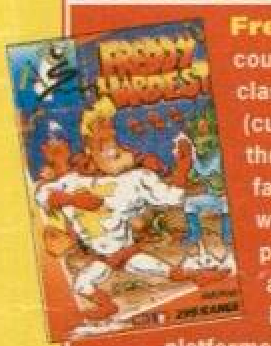
Forth A programming language. **Simon**

FRGs Fantasy Role Playing games. Adventures basically. **Dave**



Fun School "Oh, go on, mum. I won't just use it for games. Computers can be educational as well." Yes *Fun School* has always been a brilliant way of convincing your parents that buying you a computer is a good idea. The *Fun School* range is probably the most well-known range of educational software. **Dave**

CLASSIC GAME



Freddy Hardest Oddly, we couldn't come up with a truly classic game beginning with F (cue a thunderous thud as thousands of *Flimbo's Quest* fans' jaws hit the floor) but we reckon Freddy hardest is pretty darned funky and about the best of the bunch. It's a science fiction platformer/shoot-'em-up/beat-'em-up hybrid that's got the gameplay of something very playable indeed. **Dave**

Future Publishing *AA* was the first magazine Future published. Now the company produces 32 magazines, most of them about computers in one form or another and it was all made possible by the humble little magazine you're reading at the moment. Makes you think, doesn't it? **Dave**

G

Graphics A term used to describe non-textual output on to a computer screen. Non-techie interpretation: computer piccies.

The CPC has three graphics modes – low resolution (which allows for up to 16 colours on screen at once), medium resolution (up to four colours) and high resolution (two colours). **Simon**



Fruit Machine Sim A game by the Codies, reviewed by Rod Lawton, which got the lowest mark in *Amstrad Action* history – an unbeatable, 0 per cent, mainly for being a totally ridiculous concept. **Simon**

CLASSIC GAME



Gunship Generally regarded as the best flight sim ever on the CPC, *Gunship* was also the first helicopter sim, and one of the few flight sims that people who normally loathe flight sims actually think is really rather good. **Dave**

Guild Of Thieves A game that's widely renowned as one of the best commercial text adventures on the CPC. Ever. **Simon**

GX4000 See Flops. **Dave**

H

Hexadecimal A counting system based on the number 16 as opposed to 10 in the decimal system or 2 in the binary system. It's used in higher-level programming such as Machine Code because computer memory is arranged in blocks of eight bits. Of course, how obvious. Er, anyway, what happens is that when you count and get to nine, the next digit is A, after that it's B and so on up to F, after which comes 10. In other words, counting to 10 in hexadecimal goes, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F, 10. When you get to 99 in hexadecimal, the next number is A0, followed by A1, A2, and so on. Hexadecimal numbers are prefixed with &, so &20 is actually 32. How's that for an idiot's guide to hexadecimal? *(Poor, very poor – Simon)*. I wasn't asking you. **Dave**

Hairy Happening It's me! Okay, strictly speaking, I'm the Hairy Happening 2 – The Revenge Of Hairy (Ex-Ed Rod Lawton's beard was the original), but it's still me! **Simon**

CLASSIC GAME



Hudson Hawk A rarity – a film licence that was actually better than the film. A platformer that combined the all requisite elements to produce the perfect mix to create pure

Hard Drive Imagine a disk drive that has a disk permanently fixed inside it. This means that the disk itself isn't permanently being knocked about all over the shop, allowing the storage resolution (the amount of bits of data per bit of space) to be higher (with more bits of data packed closer together). This in turn means more data can be stored on the disk. You can buy hard drives to store anything between 10Mb and, well, practically anything up to a gigabyte and over. Erm… the CPC hasn't got one, though, which is a bit of a shame. **Simon**

Hardware Here's a few bits of hardware you really should think about getting hold of to make your computing life a full and rewarding experience: a CPC (*you don't say? – Dave*), a monitor (*Er… Simon? – Dave*), plug (*editor waves staff writer's P45 around in the air*), Multiface, HackIt, ROMboard, joystick, disk drive, tape deck, and, erm, *AA*. **Simon**

I

INC It's a Machine Code command to INCrement the contents of a specified register by one (techie blah, in other words). **Simon**

IK+ Forget *Street Fighter 2*. Who needs another beat-'em-up when you've got *IK+*? Great graphics, excellent controls, decently-sized sprites, it's got the lot. Apart from the cheat, that is. Y'see on the C64 there was a keypress combination you could use to make all the fighters drop their pants. Ah, well, you can't have it all. **Dave**



Incredibly Popular See *Dizzy*. **Dave**

Interface Imagine someone who could only speak French trying to communicate with someone who could only speak English. As you can probably imagine, things aren't going to get very far. This is where an interpreter comes to the rescue, by converting French into English, and English into French. This, in essence, is all an interface does – it convert signals between two incompatible languages, connectors or protocols. **Simon**

Interminable See *Dizzy*. **Dave**

Interpreter When you write a BASIC program, it's stored in BASIC form. When it's run, the CPC does not run a BASIC program. Instead, a routine called the interpreter converts the line of BASIC into Machine Code, and runs that. **Simon**

Interrupt A little routine that interrupts whatever the CPC's doing at a regular time interval (say, every 50th of a second) to get it to do something else. They're usually written in Machine Code, and are mainly used for timing music. **Simon**

Is this the end?

Nope, there's loads more to come next month in Volume Two. See you there **Dave**

Complete budget

So here we have it – the complete list (as promised last month) of every budget game currently available from the major CPC software houses. All of 'em cost a mere £3.99 each; that's a tenth of what you'd pay for a console game, and lot of them are a darned sight more playable to boot.

Next to each title, you'll find a three letter code indicating which label is selling the title, and a star rating for how good the game is. The label codes are explained in the boxes dotted tastefully around the page. Happy hunting.

3D Pool	KIX	☆☆☆☆
3D Tennis	GBH	☆☆☆☆
720 Degrees	KIX	☆☆☆☆

A

Academy	ALT	☆☆☆☆☆
Acrojet	KIX	☆☆
Action Fighter	KIX	☆☆
Addams Family	HSQ	☆☆☆☆☆
Afterburner	HSQ	☆☆☆☆
Aftermath	ALT	☆
Airborne Ranger	KIX	☆☆☆
Altered Beast	HSQ	☆☆☆
Andy Capp	ALT	☆☆☆
APB	HSQ	☆☆☆☆
Arkanoid	HSQ	☆☆☆☆☆
Arkanoid – Revenge Of Doh	HSQ	☆☆☆☆☆
Army Moves	ALT	☆☆☆☆
Aussie Rules	ALT	☆☆

B

Badlands	HSQ	☆☆
Balls, Boots, Brains	ALT	☆☆☆
Bangers & Mash	ALT	☆☆☆
Barbarian 2	KIX	☆☆
Barbarian	KIX	☆☆☆☆
Batman Caped Crusader	HSQ	☆☆☆☆
Batman	HSQ	☆☆☆☆☆
Batman The Movie	HSQ	☆☆☆☆
Big Trouble Little China	ALT	☆
BMX Ninja	ALT	Zilch!
Bubble Bobble	HSQ	☆☆☆☆☆
Bubble Dizzy	CDM	☆☆☆
Bully's Sporting Darts	ALT	☆☆☆☆

C

Cabal	HSQ	☆☆☆☆
California Games	KIX	☆☆
Captain S	ALT	☆☆
Captain Dynamo	CDM	☆☆☆☆
Castle Master	HSQ	☆☆☆☆☆
Championship Baseball	ALT	☆☆☆
Championship Sprint	ALT	☆☆☆☆
Chase HQ	HSQ	☆☆☆☆☆
Classic Arcadia 2	ALT	☆☆☆
Classic Arcadia 3	ALT	☆☆☆
Classic Arcadia	ALT	☆☆☆
Cobra	HSQ	☆☆☆☆☆
Colour Of Magic	ALT	☆☆☆☆☆
Combat School	HSQ	☆☆☆☆
Combat Zone	ALT	☆☆☆
Confuzion	ALT	☆☆☆☆
Count Duckula 2	ALT	Zilch!
Count Duckula	ALT	☆☆☆☆☆
Crackdown	KIX	☆☆☆
Crazy Cars	HSQ	☆☆☆☆
Crazy Er*bert	ALT	☆☆
Cricket Crazy	ALT	☆
Cricket International	ALT	☆
Cyberball	HSQ	☆

ALT Alternative Software, Units 5-7, Baileygate, Industrial Estate, Pontefract, West Yorkshire, WF8 2LN ☎ (0977) 797777.

CDM Codemasters, Lower Farm House, Stoneythorpe, Southam, Warwickshire CV33 0DL ☎ (0926) 814132.

D

Dandy	ALT	☆☆☆
Darkman	HSQ	☆☆☆
Dead Or Alive	ALT	☆☆
Dizzy Down The Rapids	CDM	☆☆
Dizzy Panic	CDM	☆☆☆☆
Dizzy Yolkfolk	CDM	☆☆
DM Double Trouble	ALT	☆☆☆
DM Making Whoopee	ALT	☆☆☆
Double Dare	ALT	☆
Dragon Ninja	HSQ	☆
Dragon Spirit	HSQ	☆☆
Dragons of Flame	KIX	☆
Driller	HSQ	☆☆☆☆
DT Decathlon	HSQ	☆☆
DT Olympic Challenge	HSQ	☆☆☆☆
DT Supertest	HSQ	☆☆☆

E

Escape From The Planet Of The Robot Monster	HSQ	☆☆☆☆
Empire Strikes Back	HSQ	☆☆☆☆
Enduro Racer	HSQ	☆☆☆☆
Endzone	ALT	☆
Everyone's A Wally	ALT	☆☆☆☆

F

F-15 Strike Eagle	KIX	☆☆☆
Fantasy World Dizzy	CDM	☆☆
FastFood Dizzy	CDM	☆☆☆☆
Final Fight	KIX	☆☆☆
Fireman Sam	ALT	☆☆☆
First Division Manager	CDM	☆☆☆
Flimbo's Quest	KIX	☆☆☆☆
Forgotten Worlds	KIX	☆☆
Formula Grand Prix	ALT	☆
Footballer Of The Year 2	GBH	☆☆☆
Freddy Hardest	ALT	☆☆☆☆☆
Fruit Machine 2	CDM	Zilch!
Fun School 2	HSQ	☆☆☆

G

Gary Lineker Hotshots	KIX	☆☆
Gary Lineker Soccer	KIX	☆
Galactic Games	ALT	☆☆☆
Game Over	ALT	☆☆☆
Game Over 2	ALT	☆☆☆
Games Winter Edition	KIX	☆☆☆
Gee Bee Air Rally	ALT	☆☆
Ghostbusters 2	HSQ	☆☆☆☆☆
Ghouls 'n' Ghosts	KIX	☆☆☆
Gilbert	ALT	☆☆
Go For Gold	KIX	☆☆
Graham Gooch	ALT	☆
Great Escape	HSQ	☆☆☆☆
Green Beret	HSQ	☆☆☆☆
Grell & Fella	CDM	☆☆☆☆
Grid Iron 2	ALT	☆
Gryzor	HSQ	☆☆
Guardian Angel	CDM	☆☆
Gun Boat	ALT	☆☆☆
Gunship	KIX	☆☆☆☆☆

H

Hard Drivin'	HSQ	☆☆☆☆
Head Over Heels	HSQ	☆☆☆☆☆
Heroes Of The Lance	KIX	☆☆☆
HeroQuest	GBH	☆☆☆☆☆
Hideous	ALT	☆☆☆☆
High Steel	ALT	☆☆☆☆
Hijack	ALT	☆☆☆☆
Howard The Duck	ALT	☆☆
Hudson Hawk	HSQ	☆☆☆☆☆
Huxley Pig	ALT	☆
Hypersports	HSQ	☆☆☆

I

IK+	HSQ	☆☆☆☆☆
Impossamole	GBH	☆☆☆
Indoor Soccer	ALT	☆☆
Indy Jones Last Crusade	KIX	☆☆☆
Italy 1990	KIX	☆☆☆☆☆

J

Jaws	ALT	☆☆☆☆
Judo/Uchi Mata	ALT	☆

K

Kentucky Racing	ALT	☆
Khan Squash	GBH	☆☆
Kids Pack 2	ALT	☆☆
Kids Pack	ALT	☆☆
Klax	HSQ	☆☆☆☆
Konami Ping Pong	HSQ	☆☆☆☆☆
Kwix Snax	CDM	☆☆☆☆

GBH Er... GBH, Calver House, 2/4 Calver Street, Sheffield, S1 4FS ☎ (0742) 753423.

L

Last Commando	ALT	☆☆☆☆☆
Last Duel	KIX	☆☆☆
Last Ninja 2	HSQ	☆☆☆☆☆
LED Storm	KIX	☆☆☆☆
Licence To Kill	HSQ	☆☆☆
Lifeterm	ALT	☆☆
Lotus Esprit	GBH	☆☆☆☆

M

Mad Flunky	ALT	☆☆☆☆
Magicland Dizzy	CDM	☆☆☆
Manchester United	GBH	☆☆☆
Matchday 2	HSQ	☆☆☆☆☆
Matchday	HSQ	☆☆☆☆
Matchpoint	HSQ	☆☆☆
Mega Nova	ALT	☆☆☆☆
Mercs	KIX	☆
Metalyx	ALT	☆
Miami Vice	HSQ	☆☆☆
Microball	ALT	☆☆
MicroProse Soccer	KIX	☆☆☆
Midnight Resistance	HSQ	☆☆☆☆☆
Mikie	HSQ	☆☆☆
Moon Cresta	ALT	☆☆☆☆
Moonwalker	KIX	☆☆
Munsters	ALT	☆

games round-up

Myst Indus Valley	ALT	☆☆
Myth	KIX	☆☆☆☆☆

N

Narc	HSQ	☆☆
Narco Police	GBH	☆☆
Navy Moves	HSQ	☆☆☆
Neil Android	ALT	☆☆☆
Nemesis	HSQ	☆☆☆☆
New Zealand Story	HSQ	☆☆☆☆☆
Nigel Mansell	ALT	☆☆
Nightbreed – Arcade	HSQ	☆☆
Nightshift	KIX	☆☆☆☆☆

O

Official Father Christmas	ALT	☆☆☆
Oink	ALT	☆☆
Operation Hormuz	ALT	☆☆
Operation Thunderbolt	HSQ	☆☆☆☆
Operation Wolf	HSQ	☆☆☆
Out Run Europa	KIX	☆☆☆☆☆
Out Run	KIX	☆☆☆☆

P

Parallax	HSQ	☆☆☆☆
Pegasus Bridge	ALT	☆☆☆
Pictionary	HSQ	Zilch!
Pitfighter	HSQ	☆☆
Platoon	HSQ	☆☆☆
Playdays	ALT	☆☆☆☆☆
Postman Pat	ALT	☆☆☆☆
Power Drift	HSQ	☆☆☆☆
Predator	HSQ	☆
Pro Boxing Sim	CDM	Zilch!
Pro Mountain Bike	ALT	☆
Pro Tennis	CDM	☆☆☆☆
Pro Tennis Tour	HSQ	☆☆☆☆
Pub Trivia	CDM	Zilch!
Puffy's Saga	HSQ	☆☆☆
Punch & Judy	ALT	☆
Puzznic	HSQ	☆☆☆☆☆

Q

Quartet	HSQ	☆

R

R-Type	HSQ	☆☆☆☆☆
Rainbow Islands	HSQ	☆☆☆☆☆
Rally Driver	ALT	☆☆
Rambo 3	HSQ	☆☆
Rambo	HSQ	☆☆
Rampage	HSQ	☆☆☆☆
Rastan	HSQ	☆☆☆☆
RBI 2	HSQ	☆☆☆☆☆
Read Heat	HSQ	☆☆
Real Ghostbusters	HSQ	☆☆☆☆
Real Stunt Expert	ALT	☆
Reckless Rufus	ALT	☆☆☆☆
Red Arrows	ALT	☆
Renegade 3	HSQ	☆☆☆☆
Renegade	HSQ	☆☆☆☆
Rescue From Atlantis	ALT	☆☆☆
Return Of The Jedi	HSQ	☆☆☆
Rex	ALT	☆☆☆☆☆
Rick Dangerous	KIX	☆☆☆☆☆
Robin Hood Legend Quest	CDM	☆☆☆☆☆
Robocop	HSQ	☆☆☆☆☆
Rocky Horror Picture Show	ALT	☆☆☆

HSQ Hit Squad, 2 Castle Street, Castlefield, Manchester M3 ☎ 061 832 6633.

Rodland	KIX	☆☆☆☆☆
Rogue Trooper	ALT	☆☆☆☆
Rugby Boss	ALT	☆☆☆
Run For Gold	ALT	☆
Run The Gauntlet	HSQ	☆☆☆

S

Salamander	HSQ	☆☆☆☆
Sam Fox Strip Poker	ALT	☆
SDI	HSQ	☆☆☆☆
Secret Diary Of Adrian Mole	ALT	☆☆☆
Seymour Goes To Hollywood	CDM	☆☆☆☆
Shadow Dancer	KIX	☆☆
Shadow of the Beast	GBH	☆☆☆☆
Shadow Warriors	HSQ	☆
Shaolin's Road	HSQ	☆
She Vampires	ALT	☆☆☆
Shoe People	GBH	☆☆☆☆
Short Circuit	HSQ	☆☆☆
Silent Service	KIX	☆☆☆
Simpsons	HSQ	☆☆☆
Skate Wars	HSQ	☆☆☆
Skull & Crossbones	HSQ	☆☆☆
Slapfight	HSQ	☆☆

KIX Kixx, 2/3 Holford Way, Holford, Birmingham B6 7AX ☎ 021 356 3388.

Slug	ALT	☆
Sly Spy	HSQ	☆☆☆
Smash TV	HSQ	☆☆☆☆☆
Smashed	ALT	☆☆
Snodgits	ALT	☆☆
Soccer Boss	ALT	☆☆☆
Soccer Challenge	ALT	Zilch!
Soccer Pinball	CDM	☆☆
Sooty & Sweep	ALT	☆
Sooty's Fun With Numbers	ALT	☆☆☆
Spellbound Dizzy	CDM	☆☆
Spindizzy	ALT	☆☆☆☆☆
Spitfire 40	ALT	☆☆☆
Spitting Image	HSQ	☆
Splat	ALT	☆☆☆☆
Spy Who Loved Me	HSQ	☆☆
ST Dragon	KIX	☆☆
Star Wars	HSQ	☆☆☆☆
Starwreck	ALT	☆☆☆
Steg The Slug	CDM	☆☆☆☆☆
Street Fighter	KIX	☆
Strider 2	KIX	☆☆☆
Strider	KIX	☆☆☆☆
Strike Force Cobra	ALT	☆☆☆
Strike Force Harrier	ALT	☆☆☆☆
Stryker Crypt Of Trojan	CDM	☆☆☆
STUN Runner	HSQ	Zilch!
Stunt Car Racer	KIX	☆☆☆☆☆
Super Hang On	HSQ	☆☆☆☆☆
Super Monaco GP	KIX	☆☆☆☆
Super Scramble Simulator	KIX	☆☆☆☆
Super Seymour	CDM	☆☆☆☆
Super Space Invaders	HSQ	☆☆☆☆
Supercars	GBH	☆☆☆☆
Supersprint	HSQ	☆☆
Superted	ALT	☆☆
Switchblade	GBH	☆☆☆☆☆
SWIV	KIX	☆☆☆☆☆
Swords & Sorcery	ALT	☆☆☆

T

Target Renegade	HSQ	☆☆☆☆☆
Tarzan	ALT	☆☆
Techno Cop	KIX	☆☆
Terminator 2	HSQ	☆☆☆☆☆
The Vindicator	HSQ	☆☆
The Wombles	ALT	☆☆
Theatre Europe	ALT	☆☆☆
Thomas Fun With Words	ALT	☆☆☆
Thomas The Tank Engine	ALT	☆
Thunderblade	KIX	☆☆
Tiger Road	KIX	☆
Toobin'	HSQ	☆☆☆☆☆
Top Gun	HSQ	☆☆☆☆
Total Recall	HSQ	☆☆☆
Toyota Celica	GBH	☆☆☆☆☆
Trap Door Double Pack	ALT	☆☆☆☆☆
Treasure Island Dizzy	CDM	☆☆☆
Trivial Pursuit	HSQ	☆☆
Turbo Bike	ALT	☆
Turbo Out Run	KIX	☆☆
Turbo The Tortoise	CDM	☆☆☆☆☆
Turrican 2	KIX	☆☆☆☆☆
Turrican	KIX	☆☆☆☆☆
Tusker	KIX	☆☆☆☆
Two On Two	ALT	☆☆

U

Untouchables	HSQ	☆☆☆☆
Up For Grabs	ALT	
US Aliens	ALT	☆☆☆☆
US Basket Master	ALT	☆☆☆

V

Vampyre Nosferatu	ALT	☆☆☆
Vendetta	KIX	☆
Vigilante	KIX	☆
Vindicators	HSQ	☆☆
Vixen	ALT	☆

W

WEC Le Mans	HSQ	☆☆☆☆☆
Who Dares Wins	ALT	☆☆
Wild West Seymour	CDM	☆☆☆
Wiz Biz	ALT	☆☆☆
Wizball	HSQ	☆☆☆☆☆
Wonder Boy	HSQ	☆☆☆
World Championship	GBH	☆☆☆☆
WS Baseball	HSQ	☆☆☆
WWF	HSQ	☆☆

X

X-Out	KIX	☆☆☆☆☆
Xybots	HSQ	☆☆☆☆

Y

Yie Ar Kung Fu	HSQ	☆☆☆☆
Yogi Bear	ALT	☆☆

Z

Zoids	ALT	☆

Disclaimer

Okay, we admit it, this list's not exhaustive, but it does represent every budget game you can get hold of commercially from the companies listed. In most cases, if a company isn't listed, you can be fairly sure they have ceased trading (at least on the CPC), or they've only released three or four games. Anyway, happy spending and now you won't have to break the bank.

Go Cartin' 3: The final chapter?

A long time ago in a galaxy far, far away lots of things happened that weren't remotely connected with cart games. But that didn't stop the AA crew from completing their round-up of CPC cart games currently available, strangely.

Navy SEALS



Derek had a fairly secluded life as a plumber. But with his increasing fascination for sewers, he was finding it ever more difficult to go out and meet new people.

Available from The Trading Post ■ 0952 462135

It's a crying shame, I know, but unfortunately I could never join the US army; I've got flat feet, you see. Oh, and a brain. That rules out Marines as well, I suppose. What's left, then? Navy SEALS? Not likely after playing this game; it's the worst recruitment ad they could ever have – you keep ending up dead. The SEALS bit stands for Sea, Air and Land.



But there's no sea in the game. And not much air (apart from the stuff you breath). *Navy Ls* then.

You play the part of a 'meat-head with a mission', the mission being to storm a harbour, prime loads of detonators and run for it. That's just the first part of the game, though; next you have to knock out a communications tower and run for it. I can

Operation: Thunderbolt



I couldn't be bothered to do another grab and you probably wouldn't have been able to notice the difference anyway.

Available from The Trading Post ■ 0952 462135

I'll just copy an *Op Wolf* review! You may find this quote from the publicity material for *The Lazyman's Guide To Software Publishing* by Dr K Ching a little telling:

"Why bother spending time developing new releases? We show you how to take an old game, change the name and graphics and release it as an original (or if your customers are really stupid, a sequel)."

So, for all of you fortunate enough to have missed the original (which was also nob), here's a rundown of *Wolf* (and therefore *Thunderbolt*):

A street scrolls side-to-side or towards you. Soldiers, jeeps or helicopters glide (yes, glide – the soldier's legs don't move) across the screen, letting loose with the lead in your direction. For defence purposes, you have a gun and a few grenades with which to kill the bad guys – assuming you can find the target. You see, your gun sights are represented by a pixel. Yep, I said, 'one pixel'. To quote:

"**Pixel:** A compression of 'picture element'. This is the smallest element of a screen image." – *Chambers 'Making Sense Of English In Computers'*

That's small. Too small. Luckily (in the loosest sense of the word) every time you fire, a little white explosion appears on screen; this explosion is slightly larger, so you can use that to line up shots instead. Unfortunately, white also happens to be the predominant colour in the background.



"Lift those elbows, stretch those muscles, keep those chest muscles taut... 2... 3... 4..."

Each level has a different mission such as 'search enemy bunkers' or 'gather information' but they all translate as, 'shoot lots of people'. The difficulty in this game is having two things attacking you at once, which is how the programmers justified a two-player option. But in two-player mode you just spend you whole time trying to work out which sight is yours

If you find pleasure in games like *Repetitive Sim 2*, then this is a game for you. If, however, you don't enjoy tasks on the intellectual level of cleaning your toenails, steer clear. **Simon**

20%



only assume that every other level involves detonators and running for it as I never really got that far (we'll discuss this later).

I'm human. Apologies 'n'all, but that's the way I am. If I get shot in the head, I die. If I get shot in the foot (if you really want to get pedantic about this), I don't die, but I still don't feel much like storming any fortresses. In *Navy SEALS*, unlike in most other games, your sprite can't catch four bullets in the head, be molested by a giant turtle, withstand a kipper around the kneecaps and still go on to complete a level. It's a decent surprise to finally play a game that happily admits the fact.

The downside to this is that you end up with a game that's buttock-clenchingly difficult. You've got three minutes to blow up a harbour. The quickest possible method takes about two and a half minutes. That's tight. So you've got 30 seconds to spare, and you're running round with about 20 enemies trying to stop you. One shot from them and you drop like a stone, losing valuable time, and probably restarting from the opposite end of the map (each detonator you set doubles as a restart point). That's not fair, but then life isn't fair, is it?

To combat this, you've got five blokes. That's not one bloke five times, but five separate blokes with five different faces. Great touch. Utterly pointless, but great. I'm not sure of their names, but ones along the lines of Joe, Mac, Jack, Hank and Chuck would be a fairly safe bet. On later levels, you have the option to continue, re-incarnating your five marines which is definitely a Good Thing; with a game this difficult, it'd be almost unplayable without this feature.



The graphics, as you would expect, are well drawn, very colourful and excellently animated. The scrolling is smooth and follows the player rather than flipping from one screen to the next.

Sonically, *SEALS* can get a little repetitive. Yeah, in-game sound effects are nice, with no overstated or overbearing noises, but the tune is pig-annoying to say the least. It should win awards for irritation on a subliminal level, but hey, there is a volume control, you know.

Grab factor and staying power? Well, it's almost impossible to predict how long your patience will last with this game; if you do stick around long enough to complete the first level, you'll be hooked. In fact, the only obstacle to overcome in order to enjoy this game is getting the hang of the controls. Once you get your blokey running around smoothly and you learn the timing of his moves, you'll do just fine and make decent progress.



The first casualty of war is innocence. In this case, however, the first casualty of war is Arthur – the bloke standing completely unawares with a tea towel on his head.



Welcome to the Hairy school of diplomacy. Our final lesson on this course is 'How to win an argument with only a napalm gun'.

So, how does all this translate into a final rating? Well, a slightly easier first level which allows you to get used to the controls would help matters, as would a bit of variation in activities and bad guys; the mark reflects these slight oversights in the design. But I reckon you should definitely try to get hold of *Navy SEALS*, and persevere to get a little further into the game because things really do take off. **Simon**

80%

Phazer games

Available from The Trading Post ■ 0952 462135

There's nothing I like more than a little target practice before break-fast (*I prefer about 10 hours sleep – Dave*) and with these two Phazer games there's less blood to clean up before the rest of the world wakes up and finds out what I've been doing.

To be honest he Phazer was a gimmick that never really took off; it's a gun that you connect to your CPC and use to blast away at things on screen. You can still get hold of them new for £30; the main problem is that there were only ever two games designed to be played with them. You get *Skeet Shoot* when you buy the gun, while *Enforcer* is available separately.



Skeet Shoot is clay pigeon shooting the American way. But so you don't get bored you travel around the world, taking in the delights of places like Bavaria and Mount Fuji. Can you imagine telling your careers advisor or the local job centre that you want to see the world while destroying plates with a shotgun? Maybe if you owned a country estate and had no chin they'd take you seriously.

Unlike most shooting games, there's no blood, even if you shoot the goose that flies around; all he does is shed a drop of bonus-laden liquid. The addiction factor is pretty high, with extra points awarded for spot-on shooting and hitting bonuses.

Enforcer is straight out of *The Untouchables*. As an FBI agent you are all that stands between the gangsters and their illegal beverages. You have to kill the smart-suited baddies and protect innocent citizens from stray gunfire in a pop-up gangster street. Kill enough wrong-doers with your limited supply of bullets and your reward is a bonus level. Here you have to shoot bottles of whiskey out of the hands of the mob.



Oh no! The unthinkable has happened. I've run out of bullets. I suppose I just sit here defenceless waiting to die now.



There I was having a great day time shooting a few clay pigeons, then some great bird starts doing his unmentionables on me.

It sounds simple enough but this game's a lot harder than *Skeet Shoot*. Those baddies just keep on coming and the good (and apparently very stupid) citizens of Chicago keep getting in the way. The pitifully small supply of bullets doesn't help much either; extra ammo is found by shooting the 'stick of dynamite-type things' which occasionally appear when you kill a wrong 'un.

Frankly, I wouldn't spend £30 on the Phazer; neither game is worth shelling out that much dosh on. But if you see a Phazer going second-hand at a decent price, check it works, buy it and you've got access to two unusual and entertaining games. **Sarah**

Skeet Shoot 72%

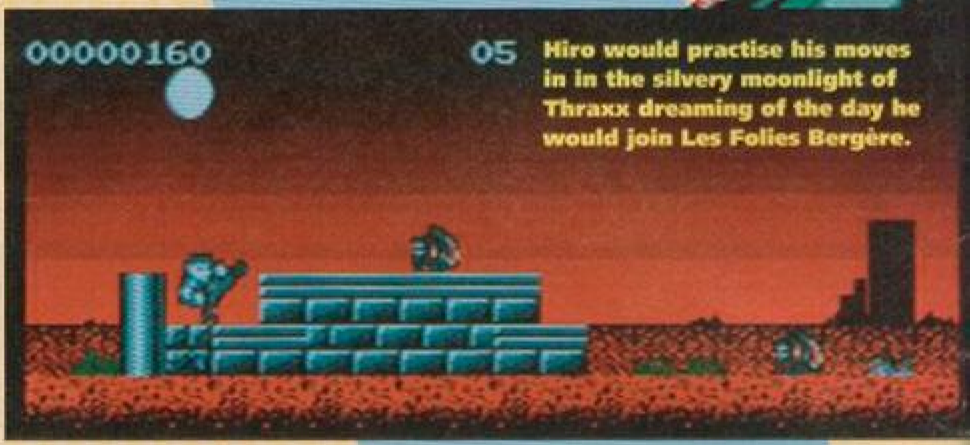
The Enforcer 60%



Switchblade

Available from The Trading Post

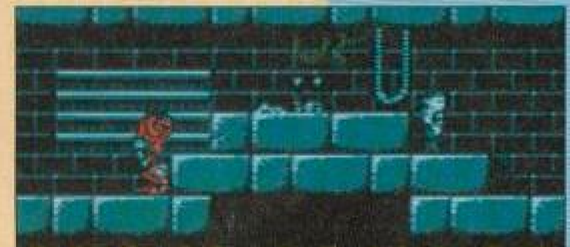
Having a robotic arm with interchangeable appendages is all very well, but has Switchblade's hero got an attachment for getting stones out of horses' hooves?



Hiro would practise his moves in in the silvery moonlight of Thraxx dreaming of the day he would join Les Folies Bergère.

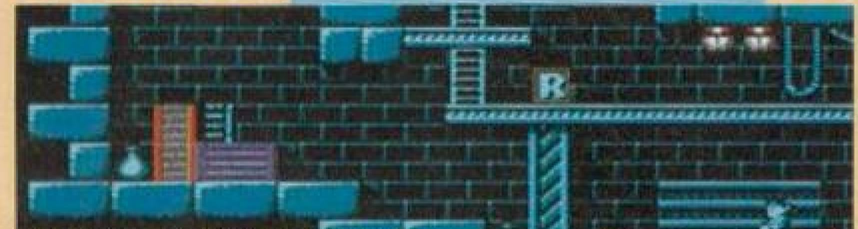
As Confucius once said, "Never undersell yourself." Or was that Yoda? Actually, it could have been Victor Kiam. Whoever it was, he knew a thing or two. So if you produced one of the hottest games ever on the CPC featuring a martial-arts hero with a bionic arm which can be fitted with a massive range of futuristic weaponry would you call it *Switchblade*? That sounds more like a licence of *West Side Story*.

But what's in a name, eh? *Switchblade* is superb and, frankly, any name other than *Buy This Game, It's Amazingly Brilliant And*


"Is this the platform for the Bakerloo line?"

Everybody Should Own It (Yes, Even Terry Venables) would be underselling it.

Hiro (which, strangely, sounds a bit like hero) is the cyberpunk star of this show. He's the bloke I was telling you about armed with the impressive, er, arm. He's the last of the Bladeknights (whoever


At times like this, Hiro wished his mum had called him Coward.

they were) and he's got a rather important task to carry out. Y'see there's this geezer called Havok who's been the evil dictator of the planet Thraxx since he shattered the mighty Fireblade into 16 pieces. Hiro reckons the best way to bring him down a peg or two is to reassemble the sword. If I was Thraxx, I'd be worried. This Hiro guy is a hell of a fighter. Apart from his Swiss-army cyber-arm, he's also a martial arts expert.

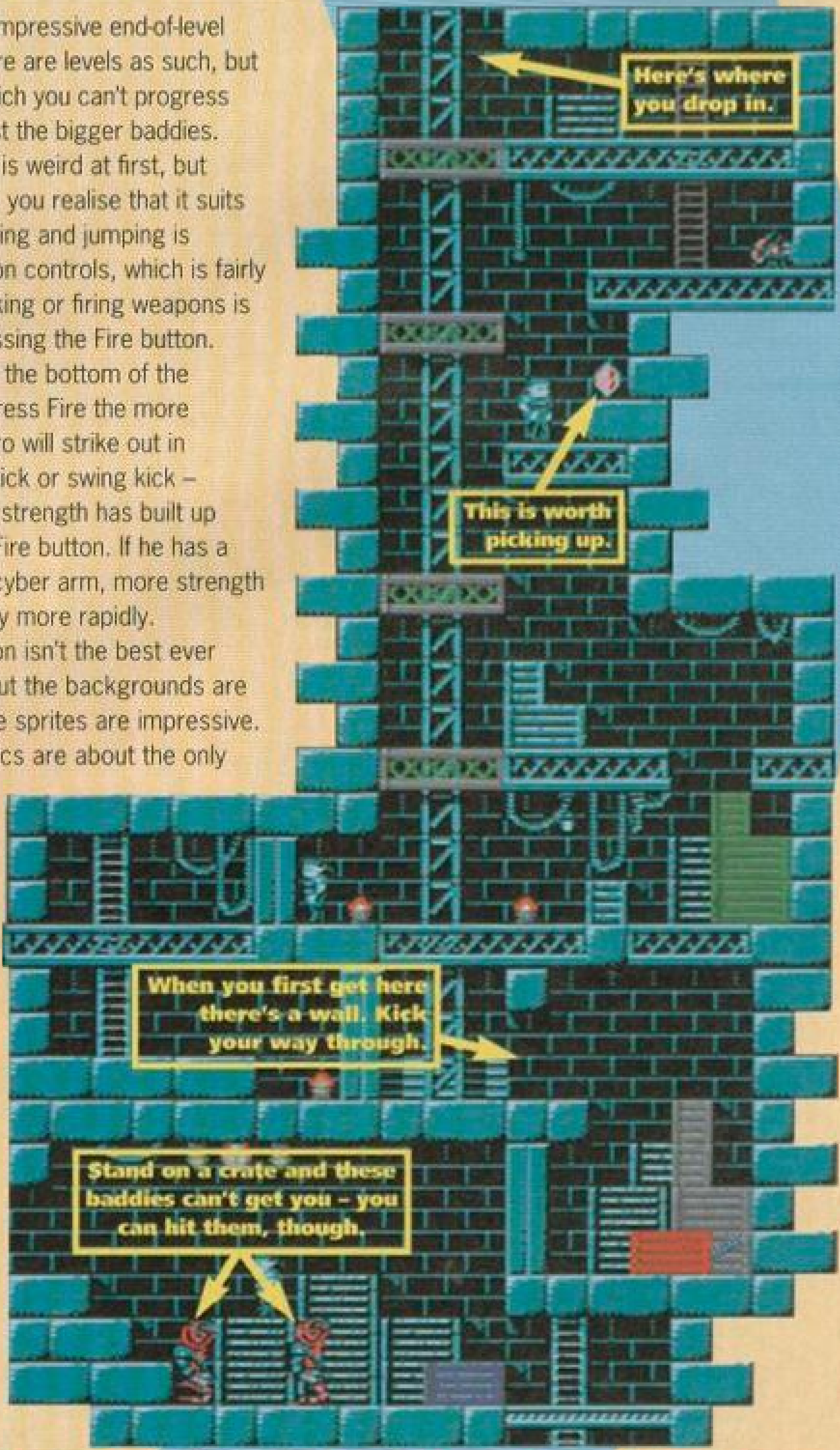
The action starts on the surface of Thraxx, but most of the game takes place in the caves beneath the planet. It's a massive *Rick Dangerous*-style platform romp. Under your expert guidance Hiro has to explore this subterranean, flip-screen world searching for the bits of the sword.

Pick-ups will either increase Hiro's cyber-arm capabilities, increase his energy or give him extra lives (the usual stuff, really). Baddies come in all varieties, from Schwarzenegger-style gladiators to scorpions, plus some impressive end-of-level guardians; not that there are levels as such, but there are points at which you can't progress further unless you blast the bigger baddies.

The control system is weird at first, but when you get used to it, you realise that it suits the game perfectly. Walking and jumping is achieved with the direction controls, which is fairly standard, but hitting, kicking or firing weapons is more than a case of pressing the Fire button. There's a strength bar at the bottom of the screen; the longer you press Fire the more strength you build up. Hiro will strike out in different ways – punch, kick or swing kick – depending on how much strength has built up before you let go of the Fire button. If he has a weapon strapped to his cyber arm, more strength enables him to blast away more rapidly.

Okay, so the animation isn't the best ever witnessed on the Plus, but the backgrounds are brilliantly detailed and the sprites are impressive. Unfortunately, the graphics are about the only enhancement this cart has over the cassette version of the game. Disappointingly, it's no faster and the layout of the platforms and the positioning of the baddies are identical. Which is a shame because while I can wholeheartedly recommend the game itself, I wouldn't recommend you buy it on cart because the cassette version is just as good. **Dave**

88%



The end... or is it?

And so, as the last cart rides off into the sunset, we say goodbye to the this on-going feature, safe in the knowledge that the world knows which carts to buy and which to shun at office parties... or does it? Could there be more carts at large, waiting to be rated? Tune in next month...

Cheat Mode

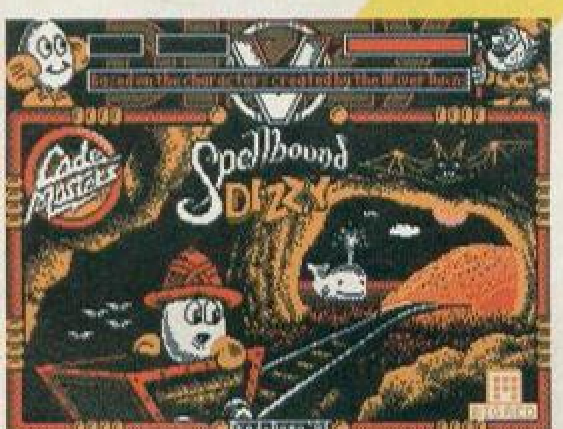
The theme of the issue is cheating, but this is one section of the mag that's been upholding that particular noble art for many years. Lee Rouane is your guide and mentor...

Spellbound Dizzy

Peter Crosby has unearthed a fabulous keypress for *Dizzy*'s hardest adventure yet. Peter informs us that if you press SPACE to start the game, then Q to quit and finally type IWANTANOMLETTE quickly on the title screen, the border should FLASH to tell you that the cheat is active. While playing the game, pressing C will bring up a menu with the following options:

- **L**....................allows you to increase your lives by one.
- **P**....................gives you an extra five stars.
- **A, S**...............allow you to toggle between items you're carrying.
- **Z, X, K, M**.....allow you to move to a desired location.





Classic crossword clue: GEGS (9,4). Hint – think Dizzy. Answers on a postcard...



Dizzy looks like he's in hot water here. I wonder if that means he'll end up boiled?

Ninja

Paul Hornsey is the man responsible for this listing which provides a healthy dose of invulnerability to even up the odds. Hmmm, invulnerability eh? I could do with that when I ask the bloke down at Stabros' Take-Away Food Shack what he puts in his kebabs.

```
KAFI 1·'·NINJA·(entertainment·USA)·CHEAT
HAKJ 2·'·······Invulnerability
GAPC 3·'······By··PAUL··HORNSEY···
AALH  4·'
HAJG 10·DATA·21,00,40,11,00,10,3E,16,CD,A1
HAOG 20·DATA·BC,21,23,40,36,C3,23,36,21,23
HAFF 30·DATA·36,A0,21,00,40,11,00,BF,01,00
HAGN 40·DATA·08,ED,B0,E2,27,A0,C3,1F,BF,21
HADI 50·DATA·3E,A0,11,41,03,01,09,00,ED,B0
HAKF 60·DATA·21,81,02,36,C3,23,36,41,23,36
HABM 70·DATA·03,C9,3E,C9,32,EE,58,2A,B0,00
CAOD 80·DATA·C9
AAAL 90·'
HALK 100·t=0:s=&A000:FOR·c=s·TO·&A046
HAAN 110·READ·p$:x=VAL("&"+p$):t=t+x
JABF 120·POKE·c,x:NEXT:IF·t<>·5770·THEN·150
```

Are you befuddled by listings?

Don't panic! There's a full explanation of how to type in listings and what the codes at the beginning of each line mean in the Type-Ins section which starts on page 32.

```
NALO 130·PRINT"Insert·tape·then·press·any·key:"
EANO  140·CALL·&BB18:CALL·s
GADG  150·PRINT"ERROR·in·DATA!"
```

Multiface Poke

58EE,C9 Invulnerability

Lords of Chaos

A few months back some tips for that great RPG *Lords Of Chaos* appeared in the hallowed Cheat Mode pages. Not to be outdone Alexander Moffat in Bushey, Hertfordshire has sent in a near-complete playing guide for all of you still struggling with the vampires or locked in the spider room.

General tips

- Let your wizard kill everything; you get twice as much experience. Just equip him with a decent →



This is supposed to be chaos? Hah, it's nothing compared to Simon's desk.

The Manic multipoke mania zone

Fighting the good fight this month with the good old mind-boggling Z80 code are Archie Fulton and Alex Cochrane. These two seem to have the Multiface scene sewn up, so let's see some new/old faces eh? (Paul Stewart Williams, Peter Curgenven, Carl Surry and John Brown take note). We don't want to have to call in the Monopolies Commission to investigate. As usual, the initials after the game reveal who saved your lives this month.

Game	Format	Poke, Address	Effect	Game	Format	Poke, Address	Effect
Rambo (AC)	Tape/disk	827E,00	Machine gun fires rockets			C741,A7	Infinite everything (Level 2)
		8E99,C9	infinite energy			3C91,A7	Infinite everything (Level 3)
Boulderdash (AC)	Tape	0082,No	No =number of lives			8835,A7	Infinite everything (Level 4)
		0083,No	No = number of start screen	*Darkman* (AC)	Tape/disk	8F67,FF	255 credits
Spike In Trans (AC)	Tape	04EC,No	No = number of lives	*Combat School* (AF)	Disk	0DB3,00	Infinite time
		1692,00	Infinite lives			1875,00	Super jump
Paperboy 2 (AC)	Tape	864D,No	No = number of lives			042C,0A	Slow timer
Zorro (AC)	Tape	5B26,No	No = number of lives			042C,00	Very slow timer
		573D,00	Infinite lives	*Chevy Chase* (AF)	Tape/disk	24E7,00	Infinite time
Solomon's Key (AC)	Tape	0837,00	Infinite lives	*Outrun Europa* (AF)	Disk	EE81,00	Infinite time
Turrican 2 (AC)	Tape/disk	9B9B,A7	Infinite everything (Level 1)			FF24,EF	235 credit

weapon and enchant it when necessary. Zap the tougher creatures (demons, spiders, wizards).
- Try to get high-level lightening bolts and magic zappers early; they're a real help.
- Don't use dragons; they provide too little return for great expenditure of mana.
- If the level is going badly don't be afraid to start again; you want as much experience as possible.

Level 1

- Summon up three unicorns and two pixies and send them out as scouts; try to find at least three of the chest keys.
- It's easier if Torquemada appears in an adjacent room; go there as fast as possible and kill him and his vampires with a lightening bolt (or three in second round) as he's just a nuisance.
- Destroy the doors to the spider room with L1 or L2 magic fire. Use spectres to weaken the spiders in the forest so you can kill them easily. Try to get in early so they aren't killed by the fire.
- Ride to the exit as the teleport is too inaccurate.

Level 2

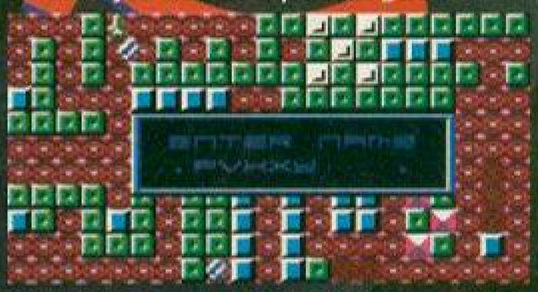
- Continue to restart until you appear just below the locked room with the two vampires. Use magic fire to break the doors and the demons to weaken (and if necessary, kill) the vampires. Conserve your zaps.
- Send a giant to the room across the lava to get the key and kill the goblins inside. Throw the key back.
- The vampires' chest contains another key. Take it and head north to the three parallel passages. You should meet Elbo Smog on the way, so kill him. If you don't, detour west but don't take too long.
- Once the spectres and the demon are dead, get the loot from the chest on the lake and teleport back to the centre chamber and wait for the exit.

Level 3

- Send a centaur north for the door key; it's in the far room at the top of the corridor. Don't push it; it's got a long journey ahead. It has to get the chest key from the altar room (which is the second on the right) and then open the chest in the chest room in the hope that there's something in it.
- Summon four demons and use them to block the teleport rings. Don't kill the pixies or the goblins; they stop the spectres and the demons coming through.
- Leave a pixie on the altar to reveal the doors in the room above the weapons room.
- Avoid the centre of the bulges in the corridors.
- Beware of the dwarf; it's tougher than it looks.
- Subvert the giant behind the chasm and kill the troll. Have him throw both bows to you; call a pixie to use the other. Use them to kill the zombies in the chest room.

Anarchy

Andrew Cranwell from Wimblington spoils us again this month with a couple of gems to add to your hint book. He suggests that on the *AA* covertape game *Anarchy*, you should enter F,V,H,X,Y into the High Score table, and this will then enable you to carry on from the level on which you died in the previous game.



What this game really needs is a rendition of Who Killed Bambi... er, maybe not.

Budget bonanza ● Budget bonanza ● Budget bonanza

Batman The Movie ● Powerdrift ● Salamander ● Operation Wolf ● Robocop

Andy Price has done us proud yet again this month with this excellent cheat for five of the greatest budget games ever. Simply type the lot in and select which cheat you want from the in-built menu. All five cheats are for the Hit Squad tape versions of the games.

```
EAFI 1·'·***·HYPERLOCK·***
GANM 2·'·Tape·Cheat·System
EAEF 3·'·by·ANDY·PRICE
HAGI 4·'·6128·users·type·|TAPE·
JAAO 5·'·before·running·this·prog
AANH 6·'
EALH 10·DATA·00,00,00,00,000
EABM 20·DATA·21,A0,99,22,17C
EAPM 30·DATA·2B,BE,22,00,10B
FAPB 40·DATA·BE,CD,7A,BC,2C1
EADM 50·DATA·11,00,40,CD,11E
EAAO 60·DATA·77,BC,2A,00,15D
FAFC 70·DATA·BE,CD,83,BC,2CA
FAFA 80·DATA·CD,7A,BC,3E,241
EAHO 90·DATA·C3,32,16,BD,1C8
FAHA 100·DATA·21,2D,BE,22,12E
FABA 110·DATA·17,BD,C3,00,197
FAEA 120·DATA·00,2A,00,BE,0E8
FAKC 130·DATA·7E,FE,16,28,1BA
EAIO 140·DATA·03,23,18,F8,136
FAMD 150·DATA·23,7E,FE,BD,25C
EAOP 160·DATA·20,F2,23,E5,21A
FAIC 170·DATA·7E,FE,C3,28,267
EAMO 180·DATA·03,23,18,F8,136
EANP 190·DATA·23,5E,36,5E,115
FAHA 200·DATA·23,56,36,BE,16D
FACC 210·DATA·EB,11,5E,BE,218
FAHA 220·DATA·01,0A,00,ED,0F8
EAPP 230·DATA·B0,22,84,BE,214
FAMC 240·DATA·E1,E9,DD,21,2C8
EAOO 250·DATA·B1,A7,11,00,169
FAOA 260·DATA·01,CD,40,A7,1B5
FAJA 270·DATA·2A,84,BE,06,172
FAFB 280·DATA·02,23,7E,FE,1A1
EAGO 290·DATA·C3,28,02,18,105
EACP 300·DATA·F8,10,F6,23,221
EAMP 310·DATA·5E,36,86,23,13D
FALB 320·DATA·56,36,BE,EB,235
FAKA 330·DATA·22,02,BE,C3,1A5
EADO 340·DATA·00,00,C3,86,149
FAAA 350·DATA·BE,00,00,00,0BE
```



Ah, this looks like a job for my special bat-bullet-repellent-aerosol-spray. Darn, left it at home. Ah well, I suppose I'll have to duck.

```
EADL 360·DATA·00,00,00,00,000
HAHN 370·n=4:a=&BE00:l=10:WHILE·l<370
GANI 380·GOSUB·390:WEND:GOTO·470
HAHI 390·cs=0:FOR·x=1·TO·n:READ·v$
GAGF 400·v=VAL("&"+v$):POKE·a,v
GANE 410·cs=cs+v:a=a+1:NEXT
FADK 420·READ·c$:c=VAL("&"+c$)
FABC 430·IF·c<>cs·THEN·450
GAAK 440·l=l+10:RETURN:GOTO·460
LAFE 450·PRINT"Data·error·in·line·",l:STOP
AABO 460·'
HACE 470·'·HYPERLOCK·game·menu
AAFO 590·'
KAAM 600·CLS:PRINT·TAB(15);"Game·Cheat·Menu"
IAEA 610·PRINT·TAB(15);"==============="
MAKG 620·PRINT:PRINT·"1.·Batman·The·Movie"
     :PRINT
IAHP 630·PRINT"2.·Powerdrift":PRINT
IALM 640·PRINT"3.·Salamander":PRINT
KAOD 650·PRINT"4.·Operation·Wolf":PRINT
FAEO 660·PRINT"5.·Robocop"
LAKB 670·z=0:WHILE·z=0:f$=INKEY$:z=VAL(f$):WEND
HAOL 680·ON·z·GOSUB·800,690,1130,1020,910
AAGO 690·'
FAEC 700·'·Powerdrift
AAPN 710·'
FANJ 720·DATA·FD,E5,FD,21,60,2E
FAEL 730·DATA·FD,36,41,FF,FD,E1
FALL 740·DATA·DD,2A,02,BE,DD,E9
FAMH 750·FOR·a=&BE86·TO·&BE97
GAEO 760·READ·b$:POKE·a,VAL("&"+b$)
IANL 770·NEXT:MEMORY·&7FFF:POKE·&BE05,&98
GAEH 780·POKE·&BE06,&9A:CALL·&BE04
DANA 790·CALL·&BE04
AAPN 800·'
GAEN 810·'·Batman·the·Movie
AABO 820·'
FAAG 830·DATA·3E,00,32,53,21,AF
FAFI 840·DATA·32,FE,24,DD,2A,02
DAMN 850·DATA·BE,DD,E9
FALH 860·FOR·a=&BE86·TO·&BE94
GAGO 870·READ·b$:POKE·a,VAL("&"+b$)
FABG 880·NEXT:MEMORY·&7FFF
HABF 890·POKE·&BE05,&9E:POKE·&BE06,&98
DAGA 900·CALL·&BE04
AABO 910·'
```



"Lay down your gun and surrender. You have 20 seconds to comply. Otherwise I'll tell your mum. I know where you live."

- There are illusory walls in the next corridor. Go through the middle of the wall in the first southern three-by-two chamber and go straight ahead.
- Use flood to dampen the flames around the diamond; ride out to avoid drowning.
- Set fire to the floor in the wooden room; this removes the roof. Kill the flying irritants and then fly in yourself and hack it out to the bitter end and wait for the exit.
- Alternatively, teleport outside the complex with the cauldron and find some fairy wings. Have some demons and giant spiders drink a flying potion and send them into the centre; they do not drop when the potion runs out. Fly in yourself when the enemy is tenderised.

Level 4

- This level is very nasty. Remember that the vultures are undead and difficult to kill; don't bother to zap them - a waste of magic.
- Send a few ghosts into the eye forest to find the chests, keys and demons. Use spectres to get them available. Fire can stop the trees from regrowing, but it's a bit of a pain.
- Find a magic bow and kill the vultures with that.
- Watch the time!



He never sleeps. He never goes on strike. He is invincible. He can be programmed for complete loyalty. But he's no fun at parties.

```
DAGB 920·'·ROBOCOP
AADO 930·'
FABL 940·DATA·FD,E5,FD,21,E0,3E
FANI 950·DATA·FD,36,12,00,FD,E1
FAPL 960·DATA·DD,2A,02,BE,DD,E9
FAAI 970·FOR·a=&BE86·TO·&BE97
GAIO 980·READ·b$:POKE·a,VAL("&"+b$)
FADG 990·NEXT:MEMORY·&7FFF
HAKG 1000·POKE·&BE05,&A5:POKE·&BE06,&99
DAPC 1010·CALL·&BE04
BAKA 1020·'
GAEJ 1030·'·Operation·Wolf
BAMA 1040·'
FACM 1050·DATA·DD,E5,DD,21,40,2C
FABL 1060·DATA·DD,36,41,00,DD,E1
FAIO 1070·DATA·DD,2A,02,BE,DD,E9
FAJK 1080·FOR·a=&BE86·TO·&BE97
HABB 1090·READ·b$:POKE·a,VAL("&"+b$)
FADI 1100·NEXT:MEMORY·&7FFF
HABI 1110·POKE·&BE05,&FE:POKE·&BE06,&99
DABD 1120·CALL·&BE04
BAMA 1130·'
FAFE 1140·'·Salamander·
BAOA 1150·'
GALI 1160·DATA·FD,21,CA,2D,AF,FD,36
HAEC 1170·DATA·34,FF,DD,21,02,BE,DD,E9
FAHK 1180·FOR·a=&BE86·TO·&BE94
HACB 1190·READ·b$:POKE·a,VAL("&"+b$)
IAMA 1200·NEXT:MEMORY·&8FFF:CALL·&BE04
```

Combat Zone

Another excellent keypress, this time from Chris Goddard in sunny St Ives in Cornwall. He reckons you should press PAUSE on any screen and then press the keys ESC, TAB, CAPSLOCK, SHIFT in that order and then HOLD. The screen will dutifully tell you that the CHEAT MODE is now active.

You should now press E for a grass-scape screen and S for a snowscape screen and then press H to install the cheat. When you UNPAUSE the game you will have infinite hyberbombs, over 255 Lives and more than 59,875 on your Fuel Gauge. What more could you ask for?

Chris also exclusively reveals to Cheat Mode that you should press SPACE for Hyperbomb instead of CAPSLOCK. Cheers Chris.

Level 5

- Go straight to the complex on unicorns and summon five demons. Send them out in all directions to find Helix. When they do, make sure they kill him quickly.
- There is a square room to the north of the entrance with a door in the northern wall. Go in, kill the pixies in the room and get the key.
- Find the enclosed room with no teleport ring or door and summon a dwarf. Fire a high-grade magic attack to kill the dwarves inside. Teleport in and open the chest. Read the scroll and the traps in the mummy room appear. Teleport out again.
- West from that room is a teleport ring enclosed by an island of wall, unattached to the sides. Send in a few healthy demons and then go in yourself.
- Leave a few creatures to mop up the leftovers.
- Follow the path avoiding the invisible walls, always sending demons through first. The spectre is highly aggravating, so kill it anyway, and pass through the left portal.
- Try to kill the mummies yourself for the points.
- Do NOT step on the highlighted squares.
- You and your unicorn need to drink from the potion with all your action points; when the it's all gone you can open the chest. Don't bother with the demons; you don't need them any more.
- Grab the loot and teleport to the exit.

Other bits

- Alexander also reveals that a poke is NOT necessary to gain infinite experience. Instead, follow these instructions and you'll soon be more experienced than a God of Experience who's been taking lessons in advanced experience.
- When defining the wizards, give one of them a magic resistance of 71. Then go to another and reduce their magic resistance to 70. Next go to the one you want to boost and reduce his magic resistance down to 0 and round to 255 and then back to 70. Distribute the experience and repeat as many times as desired. But you can't summon eight gold dragons as you have insufficient mana.

Biff

Somebody who's got to grips with *Biff* is Malcolm Dowse from County Dublin. He suggests that typing SPACE, FIONA, SPACE, B, SPACE (the SPACE means a real space not the word) will give you infinite energy.

More Biff

If you haven't got to grips with *Biff* here's a cheat that should see you bunging your name into the High Score table in no time; and with that honour comes the added bonus that you can then enter the games' in-built cheat. This cheat is for the tape or transferred disk versions; simply choose which option you want. Penned by the man in Matlock.

```
FACL 100·'Biff·Cheat·(AA29)
GAJJ 110·'Infinite·Energy
IABK 120·'LRouane·for·Cheat·Mode
AALN 130·'
IAOJ 140·DATA·21,58,1B,11,B1,89,3E,F2,CD,A1,BC
IACJ 150·DATA·C3,30,BF,00,11,58,1B,21,FF,AB,0E
IANM 160·DATA·07,CD,CE,BC,21,38,BF,CD,20,BF,11
IAPK 170·DATA·58,1B,06,04,D5,CD,77,BC,E1,CD,83
IAPM 180·DATA·BC,CD,7A,BC,3E,00,32,AC,95,C3,A5
IAAB 190·DATA·A4,62,69,66,66,00,00,00,00,00,00
CANM 200·DATA·LCR
EADF 210·chk=0:x=&BF00
JAJE 220·READ·a$:IF·a$="LCR"·THEN·250·ELSE·230
GAPC 230·a=VAL("&"+a$):POKE·x,a
HAFN 240·x=x+1:chk=chk+a:GOTO·220
HAFH 250·IF·chk<>&1C11·THEN·GOTO·380
IAND 260·MODE·1:BORDER·0:INK·0,0:INK·1,24
IAKP 270·PRINT·TAB(13);"Biff·AA29·Cheat"
IAFA 280·PRINT·TAB(13);"==============="
JAEG 290·PRINT:PRINT:PRINT:PRINT:PRINT
LAOB 300·PRINT"Load·From·Tape·Or·Disc·(T/D)"
IAAA 310·PRINT:PRINT:WHILE·INKEY$=""
GAPA 320·IF·INKEY(51)=0·THEN·350
HAJN 330·IF·INKEY(61)=0·THEN·CALL·&BF0F
EAMA 340·WEND:GOTO·310
JAPP 350·PRINT·TAB(10);"**·Insert·Tape·29·**"
JAEN 360·PRINT·TAB(10);"**·Then·Hit·A·Key·**"
FANI 370·CALL·&BB18:CALL·&BF00
KAAO 380·PRINT·"Data·Error·Old·Bean·...":END
```

Multiface Poke

95AC,00	Infinite Energy

Biggles



He also tells us that the entry codes needed for the helicopter ride in *Biggles Part 2* are WREN, HAWK, DOVE and CROW. You will find that you now have clearance and you can go on to complete the game (with a cheat of course). Thanks for these Andy, keep 'em coming.

Poking the multiface way

1. Load the game as normal.
2. Press the RED button on the MULTIFACE.
3. Press 'T' for tool.
4. Press '*' to select the code.
5. Press 'H' for HEXADECIMAL input.
6. Press 'SPACE' for input.
7. Type in the ADDRESS (ie, 3A7C)
8. Type in the POKE (ie, A7)
9. Press 'RETURN'
10. If there's more than one poke go to 7.
11. Press 'ESC' back to the menu.
12. Press 'R' to return to the game.

The Examiner

"Go west," say The Pet Shop Boys. "Go east," says Debby Howard. Who would you believe? It all depends on whether you prefer to trust someone with a fruitbowl on their head or AA's adventure specialist. And whether you're playing an adventure, I suppose.



REVIEW The Last Snowman

Tape £2. Disk £4. WoW Software, 78 Radipole Lane, Weymouth, Dorset DT4 9RS. Cheques/POs payable to: JG Pancott.

To you, me and the Wicked Witch of the West, melting might not be our ultimate goal in life, but for snowmen, well, it's what they live for. When a snowman dissolves, you see, it's only his physical form that cops it; his consciousness, soul, life force, karma, spiritual self (depending on your preference) passes on to a higher plain of existence, a sort of deep frozen Nirvana where chocolate never melts in your hand and all the snowmen live in perfect permafrost harmony.

But Jack Frost (the cold-hearted villain in this tale) has ruined it all for one snowman by freezing him so cold he'll never melt. Jack also tore up the piece of paper which would have told the snowman where to go in the unlikely event of someone being able to melt him! Your task is to find the seven pieces of paper and put them back together and then to thaw out *The Last Snowman*.

Kids' stuff

If it all sounds a bit *Jackanory*, that's because it's been written for kids (although if you're a beginner in adventuring, it also might suit you – if you can handle the cuteness). The adventure has been written by the same authors as the *Angelicus Saga and Angelicus Answer*, Margaret and Mike Crewdson.

Instead of the normal north, south, east and west, you have to go forwards, backwards, left and right. You can choose to see the full instructions before playing the game or give them a miss. A tune and a picture of the snowman accompany the loading.

It was written with the help of *GAC* (*Graphical Adventure Creator*) so there are loads of pictures. I particularly liked the scarecrow and the snowman. At all times you're required to be polite and helpful to all the characters you meet. The graphics can be turned off, but might miss out on vital clues (that's a hint, by the way).

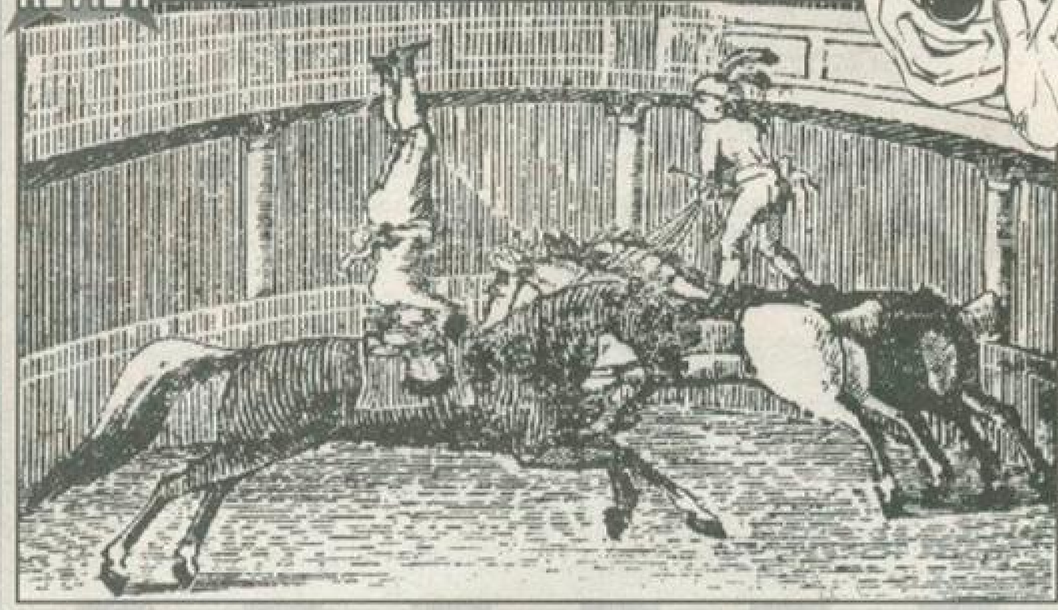
Personal touch

One excellent touch is that each game is personalised. *The Last Snowman* addresses the player in a number of places. When you send off for the game, tell WoW the name of the child that's going to be playing it and they'll insert it into the game.

If you have a green screen monitor you might have difficulty reading the text which is dark red against a dark background. Apart from that there are no major faults, and I reckon young kids'll love it.

89%

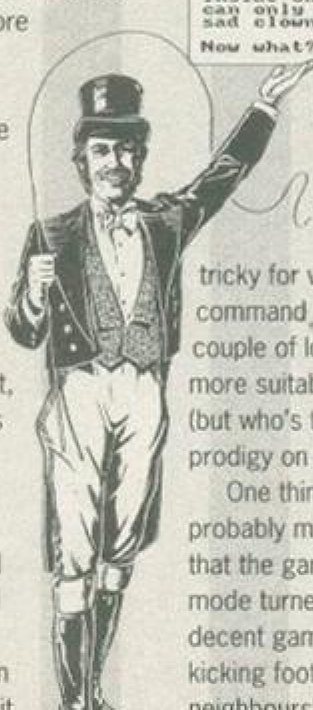
REVIEW The Big Top



Tape £2. Disk £4. WoW Software, 78 Radipole Lane, Weymouth, Dorset DT4 9RS. Make all cheques/POs payable to: JG Pancott



If your kids are at an age when snowmen and Jack Frost just ain't hip no more (which these days seems to be anything over three-years old) then this adventure, which is aimed at a slightly older age group than *The Last Snowman* is designed for, is more likely to hold their interest.



The circus has come to town, and like most children, the main character (who we'll call Fred for the sake of argument) wants to run away and join it. So off he goes to see the ringmaster to ask him if he can join the circus. The Ringmaster says he'll consider it, but he gives Fred loads of tasks to do before he will accept you (*this sounds like exploitation of child labour to me – Dave*). So you find yourself running around playing throw-a-dart, hoopla and loads of other stuff.

The Big Top has been written by Ronnie Slater using *GAC*, so it features loads of pictures. When you first load up the game you're requested to input whether you're male or female; entering certain locations can depend on sex. To get a list of the vocabulary just type in HELP. The adventure is easy to map



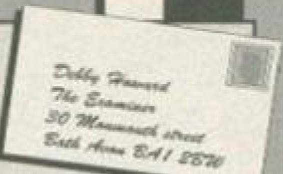
And here, ladies and gentlemen we see the dangers of sunbathing beneath a net.

although I reckon that some of the puzzles would be a bit tricky for very young kids; the EXAMINE command comes in very handy in a couple of locations. I think it would be more suitable or kids aged 10 years and up (but who's to say you haven't got a child prodigy on your hands?).

One thing I found annoying (which probably means that children will love it) is that the game won't work with the graphics mode turned off. But overall, it's a fairly decent game that should stop your kids kicking footballs through your neighbours' windows for at least a couple of hours.

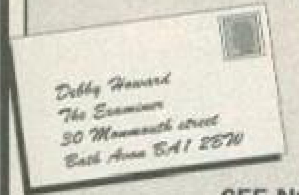
70%

Letters



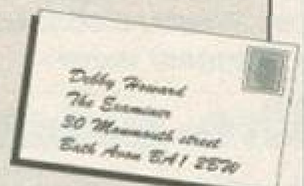
I have a cunning tip which works on *PAWS* games (such as *The Spiro Legacy*) and should work on *GAC* games too.

When you're trying to find out whether a 'prop' which appears in the description of a room has any bearing on the plot of the game, choose an object you are carrying that has a definite unique description and EXAMINE it. Now examine the object you are interested in. If you get a response like YOU SEE NOTHING UNUSUAL then type EXAMINE IT. If you get the response you got from the object which is definitely part of the game then you know that the object you are interested in is not part of the game! If you get another neutral response then it is part of the game!



Mark Stewart, Derbyshire.

Have you ever tried loading in a saved file from one *GAC*ed adventure into another? I have discovered some very amusing inventories when trying this out!



P Holland, Birmingham.

Yes, I must admit I'm guilty of this little trick too, it works with *Quilled* adventures too!

Debby

Give us a clue

Here's the concept: you discover a few hints and tips about an adventure; you send them in to us; your name gets in print; your tips help out other adventurers; they read your name; you become a national hero (perhaps). Send those tips to: The Examiner, *Amstrad Action*, 30 Monmouth Street, Bath, Avon BA1 2BW.

This month's national heroes are: Ross Younger (Edinburgh), Malcolm Dowse (Co. Dublin) and The Orped from Kent.

Eve Of Shadows

- Give the red herring to a squawking fiend.
- Smash the grate.
- Rub the horseshoe before going to the Inn and buy a drink.
- Wear the slippers to get past the dragon.
- Become Calardyr and pray at the temple.
- To cross the toll bridge, put a coin in box twice.
- If you're in the quicksand get the pole and get Calardyr to cast the levitation spell.

Five On A Treasure Island

- Take the batteries out of the clock.
- The matches are under the bed in the spare room.
- To get Timmy off Alf, become George and type TALK TO ALF.
- The grille at the bottom of the well can only be pushed from the inside.
- On the Eastern Tip, TIE ROPE TO STUMP and DROP ROPE.
- Only Julian can break the crate.

Gremlins

To start: down, get sword, kill gremlin. Get the flashlight and turn it on, then post it on the postbox.

Hitchhiker's Guide to the Galaxy

- To get started in the adventure don't forget to switch the light on.
- Once outside lie in front of the bulldozer and wait until Ford offers you a towel.

Knightmare

- Give the water and food to the old man, and then ask and go east and dig with the spade that the old man gives you.
- To get the locket from the old maid, give her the gold several times.

Who's Afraid of the Balrog?

- Examine absolutely everything. You could be surprised at what you find.



A little known fact is that Simon actually did some freelance modelling work for the intro screen of Who's Afraid of the Balrog?

- When you open the door and go into the kitchen for the first time, close it again.
- Don't drink the cocoa yourself. Somebody (inside the lair) needs it, and the same goes for the mag.
- The numbered floor is perfectly logical. But you need something to give you a hand with the order.
- Scottish viewers, if you saw that episode of Taggart with the snakes in people's houses and beds and things, well...
- Examine things!
- JUST FOR LAUGHS: Cut the cable (in the boiler room) with the knife!

Worm in Paradise

- The Dagget will go down 100 creds a day in price, so don't buy it immediately.

Lords & Ladies of Adventure



The Lords and Ladies of Adventure aren't like real landed gentry. They don't sit around in large manors complaining about tourists trotting around their ancestral homes and wondering why they ever abandoned the serf system when it was so useful for subjugating the working the working classes and getting someone to clean your windows for free.

Nope these Lords and Ladies are here to help the less fortunate, as long as the less fortunate are stuck on a CPC adventure, that is. If you're having problems with one of the games listed below, these kind souls are willing to help you. If an address is given enclose an SAE with your enquiry and DON'T ask for a full solution, as you'll probably be disappointed.

- *Adult 2, Can I Cheat Death?, Dungeon, Firestone, Jason & The Argonauts, Spacy, Tizpan, Welladay* – Stuart Mainland, 2 Douglas Road, Coylton, Ayr KA6 6JJ.
- *Avon, Forest At World's End, Hollywood Hyjinx, Kobyashi Naru, Mordon's Quest, Scapeghost* – Angela Allum, 22 Point Royal, Bracknell, Berkshire RG12 7HH.
- *Knightmare, Kobyashi Naru, Rebel Planet, Who's Afraid Of The Balrog?* – Ross Younger, 3 Cammo Parkway, Edinburgh, EH4 8EP.
- *Five On A Treasure Island* – (which has been completed by the newest addition to our roster of Lords and Ladies) Phil Mitchell: ☎ 0684 274232 (evenings).
- Just about every adventure that's ever appeared on the CPC – Joan Pancott: ☎ 0305 784155 between 1pm and 10pm.
- If you've finished an adventure and you feel like giving someone else some help with it (and letting everyone know what a clever clogs you are) you can become a Lord or Lady of adventure simply by writing in to: Lords and Ladies, *Amstrad Action*, 30 Monmouth Street, Bath, Avon BA1 2BW. It could change your life (probably).

Where To Go!

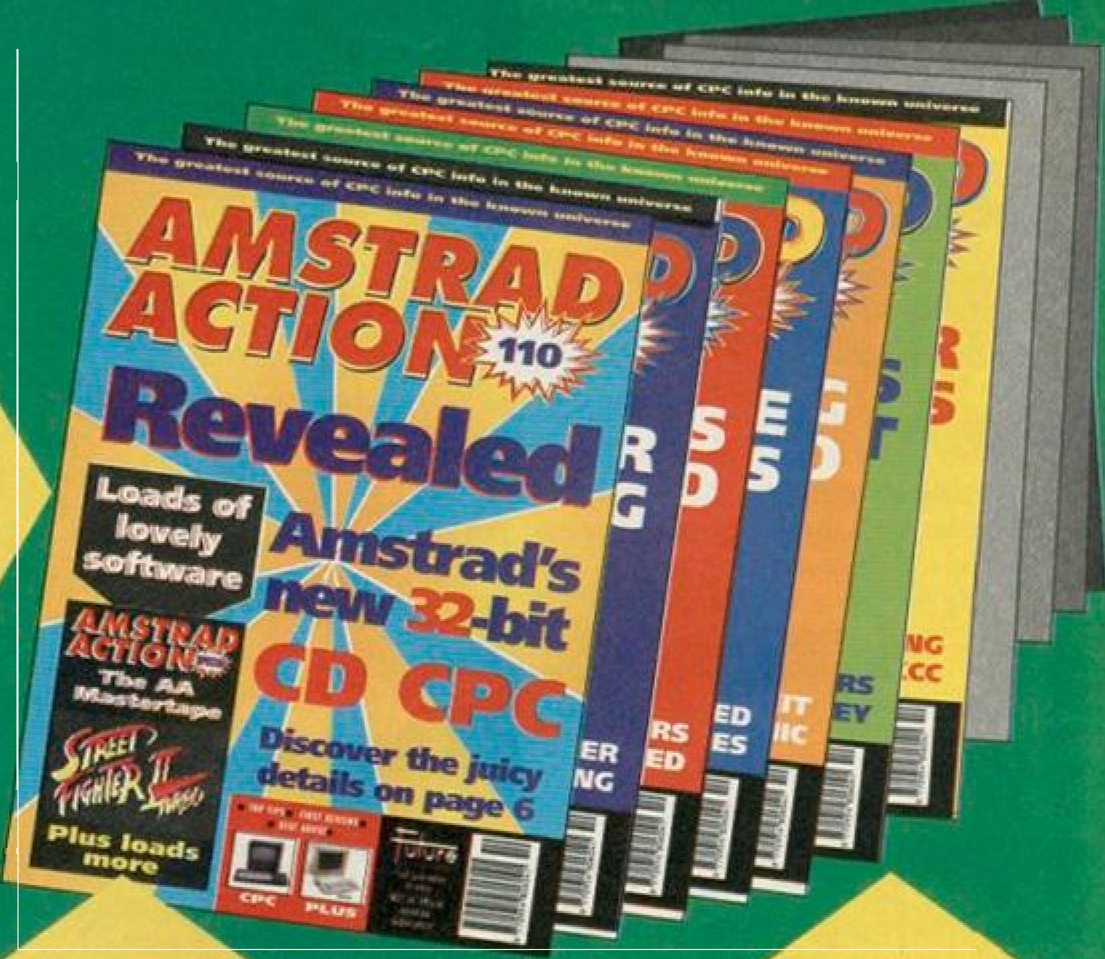
Get a load of this – if you send a stamped self-addressed envelope to any of the following addresses, within a few days you will receive a catalogue of all the adventures, new and re-released, that they've got in stock. And then you'll be able to order the ones you want. What a truly amazing concept.

- WoW Software, 78 Radipole Lane, Weymouth, Dorset, DT4 9RS.
- The Adventure Workshop, 36 Grasmere Road, Royton, Oldham, OL2 6SR.

You never know, it could happen... So make sure you're here if it does.

If it's happening in the CPC scene you'll hear about it first in Amstrad Action. So if you've got a CPC then Amstrad Action is an essential monthly purchase. And the best way to make sure you never miss a copy is to subscribe.

- Your copy of AA is delivered direct to you every month. No fuss, no bother.
- It's cheaper than buying from the shops because for each year's subscription you get two issues free.
- And don't forget that every month with Amstrad Action there's a cover tape packed with great games and superb utilities.
- So what are you waiting for? Subscribe to Amstrad Action now and live a hassle-free 12 months. You never know, it could change your life (probably).



2 FREE ISSUES!

Let's say these two issues for the sake of argument. Y'see when you subscribe to a year's worth of Amstrad Action you only have to pay for 10 issues. Or, in other (bigger) words:

12 issues for the price of 10!

It's a barg' of epic proportions.

YOUR NO-QUIBBLE, NO-RISK GUARANTEE

You can cancel your subscription at any time in the future and we *will refund you in full for all* unmailed issues.

You just can't lose out!

GUARANTEED

SUBSCRIBE TO AMSTRAD ACTION NOW!

Yes! Please enter/renew my subscription to Amstrad Action at the all inclusive price of

12 ISSUES ☐ **UK £29.50** ☐ **EUROPE £47.25** ☐ **REST OF WORLD £63.10**

To ensure you receive your magazine and tape quickly and undamaged, all overseas subscriptions are sent Air Mail

If you are an existing subscriber please quote your subscription reference number here – you will find this on your address label ____________

MY METHOD OF PAYMENT IS *TICK YOUR CHOICE* **TOTAL PAYMENT £** ____________

☐ **VISA** ☐ **ACCESS** *CARD NO* ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ *EXPS* ☐☐☐☐ ☐ CHEQUE *payable to Future Publishing Ltd*

NAME ____________ SIGNATURE ____________

ADDRESS ____________

____________ POST CODE ____________

Enclose this coupon (together with your cheque if applicable) in an envelope and send to: AMSTRAD ACTION SUBSCRIPTIONS, FREEPOST, SOMERTON, TA11 7BR.
YOUR SUBSCRIPTION WILL BE PROCESSED IMMEDIATELY. THIS COUPON IS VALID UNTIL 30TH NOVEMBER 1993 **AA/MAG/1193**

Centenary survey

Just two issue to go before the big one-zero-zero so we thought what better time for you to tell us what you think about the CPC? We're always giving you our opinions, now you can give us yours. Either fill in this form or make a reasonable copy of it, and send your votes our way at Centenary Survey, Amstrad Action, 30 Monmouth Street, Bath BA1 2BW. Your votes need to reach us by Friday 12th November.

100

1 Favourite CPC game

____

2 Least favourite CPC game

____

3 Favourite CPC game graphics

____

4 Favourite CPC game music

____

5 Favourite word processor

____

6 Favourite other utility

____

7 Favourite hardware add-on

____

8 Favourite issue of *Amstrad Action*

____

9 Favourite cover of *Amstrad Action*

____

10 Favourite *Amstrad Action* covertape

____

11 Best PD library

____

12 Most annoying thing about the CPC

____

Future Publishing Limited,
30 Monmouth Street,
Bath, BA1 2BW
Tel: 0225 442244
Fax: 0225 446019

Editor Dave Golder
Art Editor Andy Ounsted
The Hairy One Simon Forrester
Contributors Richard Fairhurst, Tim Blackbond, Debby Howard, Lee Rouane, Sarah Tanser, Fodder's Sandwiches
Photography Andy 'Mr Versatility' Ounsted, Sarah 'but it won't click' Tanser.
Cover Illustration Paul Kidby
Senior Ad Sales Executive Caroline Simpson
Ad Sales Executive Robert Bennett
Publisher Colin Campbell
Group Publishing Director Greg Ingham

Production Craig Broadbridge
Lino and Scanning Simon Chittenden, Jon Moore, Chris Stocker, Simon Windsor, Jason Titley, Mark Gover, Nick Harvey
Subscriptions Christine Stacey
Tel: 0458 74011
Circulation Manager Jon Bickley,
Tel: 0225 442244

Printed in the UK

ABC 21,832
Member of the Audit Bureau of Circulations Feb '93 - Jun '93

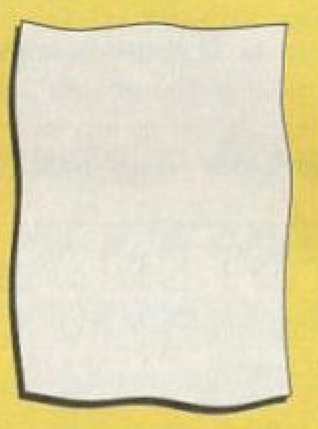
Next Month

Before Rainbow Islands there was Bubble Bobble.
Before Silence Of The Lambs there was Manhunter
Before World War 2 there was a lot of arguing.
Before the news last night there was an interesting documentary on the sex life of a sea cucumber.
AND BEFORE ISSUE 100 OF AMSTRAD ACTION THERE WILL BE ISSUE...

AA99

THE FANZINE SPECIAL

We show you how to turn this...



...into this...



...using your CPC. Plus: we do a round-up of current CPC fanzines (and try to resist calling the feature 'Zine Scene') and the covertape will be packed with useful Desktop Publishing-type programs.

But it's not all work, work, work, because also on the covertape is the superb Stormlord, a stonking, horizontally-scrolling shoot-'em-up with springboards, keys, puzzles, the whole works (including the kitchen sink).



Stormlord blasts on to AA99's covertape

On sale:
Thursday 25th November